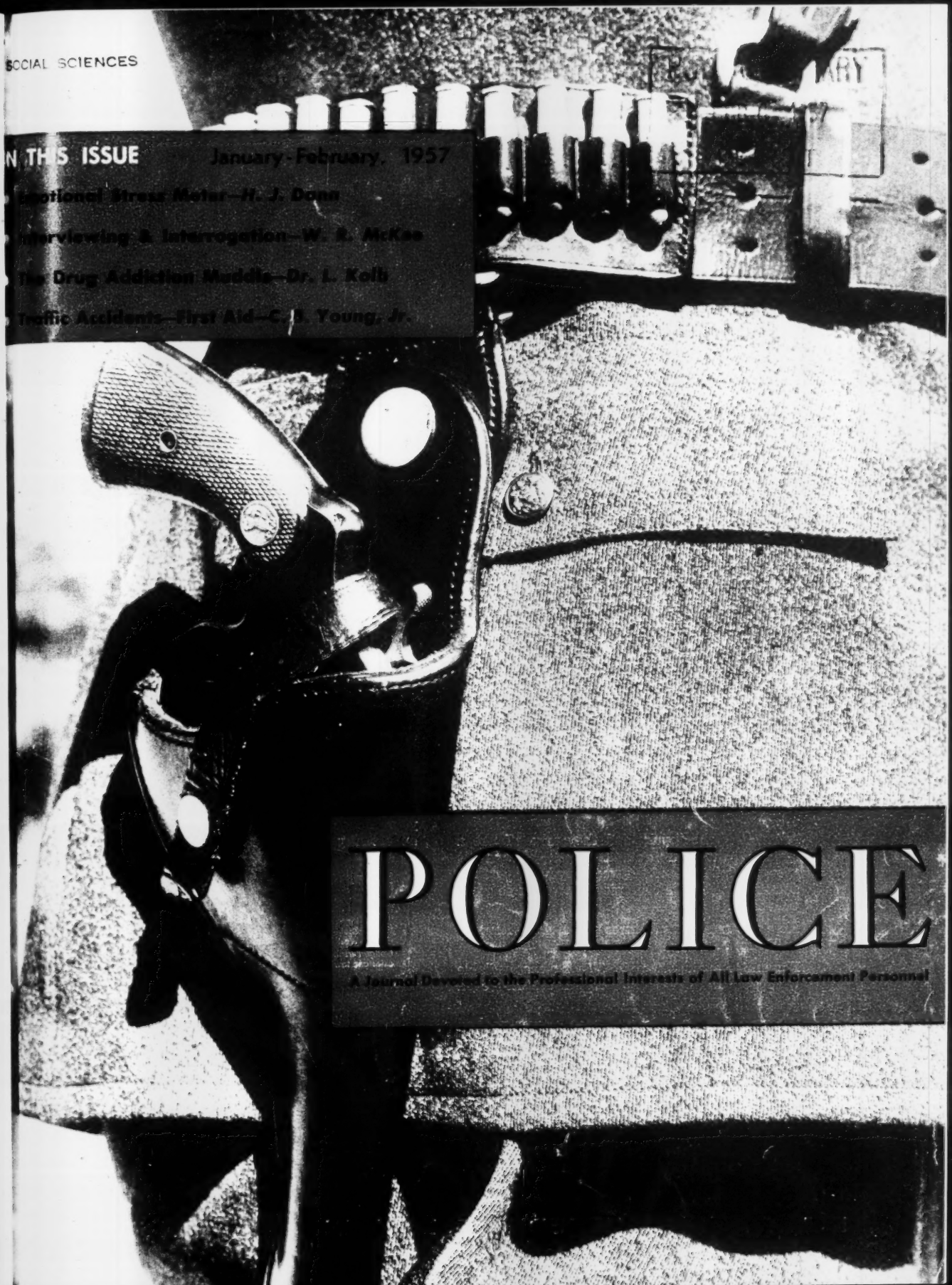
SOCIAL SCIENCES



N THIS ISSUE January-February, 1957

Emotional Stress Meter—*H. J. Donn*

Interviewing & Interrogation—*W. R. McKee*

The Drug Addiction Muddle—*Dr. L. Kolb*

Traffic Accidents—First Aid—*C. J. Young, Jr.*

POLICE

A Journal Devoted to the Professional Interests of All Law Enforcement Personnel

Texas Rangers get new "Swept-Wing" mounts!

The Texas Rangers, scourge of the western badmen for more than a century, are now driving the most spirited "mounts" ever saddled. But these sleek, low-slung beauties need no breaking to bridle and bit. They're the powerful new '57 Dodge Pursuit Cars.

A touch of the "spur" and they take off like a streak o' light . . . from standstill to highest pursuit speeds in a flash! And the way they handle, corner and stop will turn a champion quarter horse green with envy.

Here are some of the features that sold the Rangers on Dodge . . .

Four mighty aircraft-type V-8 engines available with up to 310 horsepower. They're not even breathing hard at 80 mph.

3 Great Transmissions—These power-packed engines can be "harnessed" to standard gearshift, to Push-Button PowerFlite or the new 3-speed Push-Button TorqueFlite.

New Total-Contact Brakes require 25% less pedal effort, have far less fade even after repeated top-speed stops, give 30% longer lining life.

New Torsion-Aire Ride introduces a revolutionary rubber-mounted suspension system featuring race-car torsion-bar springing for smoother going on the straightaway and flat cornering on curves.

Dodge Pursuit Cars have as standard equipment many special heavy-duty components for the tough daily punishment that police work demands. See your Dodge dealer for full information and the opportunity to take a test drive.

State Police Organizations in the following 13 States use Dodge Pursuit Cars in their round-the-clock duties:

- Alabama
- California
- Colorado
- Delaware
- Florida
- Georgia
- Indiana
- Louisiana
- Missouri
- South Carolina
- Tennessee
- Texas
- West Virginia

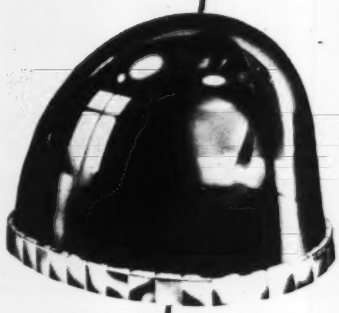
Dodge Pursuit Cars are also used by Police Departments in scores of cities and towns in all 48 States.

SWEPT·WING

'57 Dodge

PURSUIT CARS

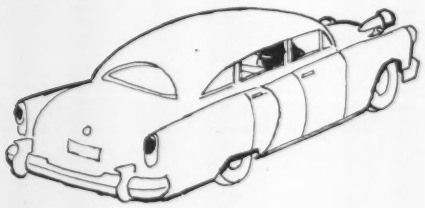
BUILT AND POWERED FOR LAW ENFORCEMENT WORK!



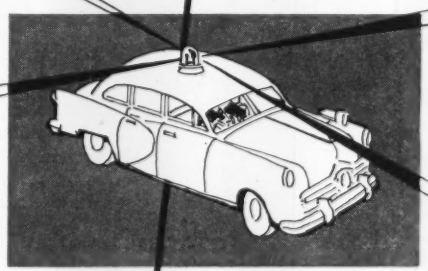
PROTECTION for the unmarked car!

Concealed identity has its place in apprehension, but if a misstep leads to a "get-away" your unmarked car is almost helpless in pursuit.

FEDERAL FIRE-BALL!



A FEDERAL Fire-Ball concealed in the glove compartment can be plugged into the cigarette lighter instantly and tossed anyplace on the roof, to provide instant warning.



In a moment, the unobtrusive vehicle is quickly identified as "POLICE!" to all traffic, because the 360° revolving beam of red light warns motorists and pedestrians, clears the way. No light less than *twice* its size has ever projected the beam-candlepower of the Fire-Ball. One of the original production run, still on test, has been operating continuously for over 5000 hours without beginning to show any need of service or repair. The FEDERAL Fire-Ball leads in durability, performance, compactness and value. Write for literature today!

FEDERAL SIGN and SIGNAL Corporation

8706 So. State St., Chicago 19, Ill.

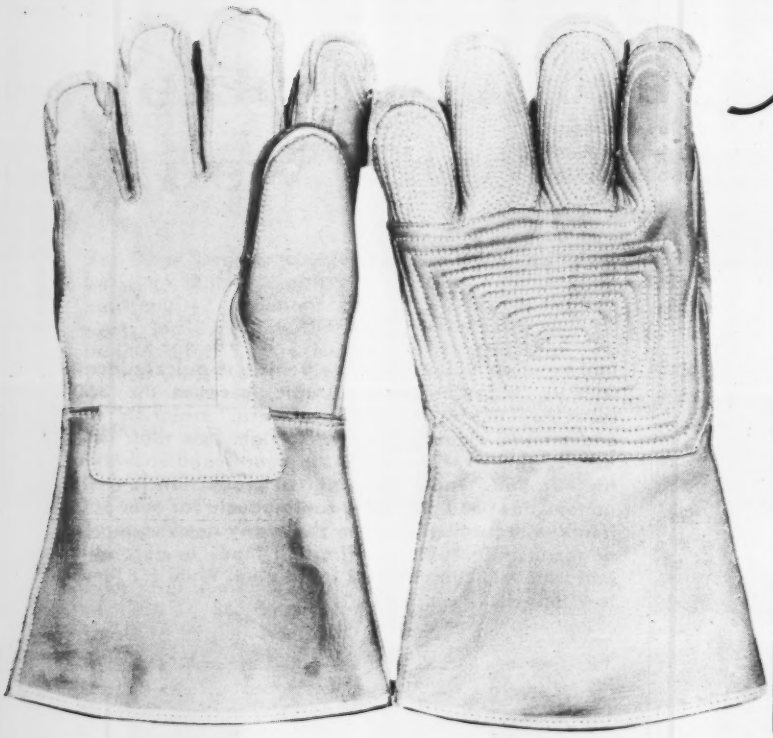
FOR GREATER SAFETY . . .
For More Effective Traffic Direction.

ADVANCE
REFLECTIVE
NIGHT TRAFFIC GLOVES

They safeguard your life—they make your work easier! They reflect the slightest amount of light—making your hands glow in the dark! Your hand signals will be more authoritative. Your dark uniforms will be accented by a flash of brightness which may prevent your becoming a traffic fatality. Big enough and well proportioned to fit over wool gloves. Elastic wrist band keeps gloves snugly in place.

$8.00 PR.

IT REFLECTS HEADLIGHTS



ADVANCE *Extra Heavy*
DOG CATCHERS GLOVES

Combine maximum of safety with maximum hand freedom. Made of several layers of heavy quilted leather. Tough and rugged—yet amazingly flexible. Aids in prevention of bites and scratches.

$10.00 PR.

USED FOR YEARS IN MANY MUNICIPALITIES

PIONEERS IN THE MANUFACTURING OF
SAFETY GLOVES

ADVANCE GLOVE MFG. CO.

960 WEST LAFAYETTE BLVD., DETROIT 26, MICHIGAN

CHICAGO OFFICE: 2642 NORTH GREENVIEW AVE.

A Journal Devoted to the Professional Interests of All Law Enforcement Personnel

POLICE

EDITOR

V. A. LEONARD
Professor of Police Administration
P.O. Box 837, College Station
The State College of Washington
Pullman, Washington

CONSULTING EDITORIAL BOARD

BERNARD C. BRANNON
Chief of Police
Kansas City, Missouri

C. B. HANSCOM
Director
Department of Investigation
430 Johnston Hall
University of Minnesota
Minneapolis 14, Minnesota

ROBERT A. MASON
Secretary-Treasurer
Associated Police Communications Officers, Inc.
Santa Clara County Communications Department
San Jose, California

LEMOYNE SNYDER
Medicolegal Counsel
Paradise, California

RICHARD C. STEINMETZ
Chief Special Agent
Mutual Investigation Bureau
20 North Wacker Drive
Chicago 6, Illinois

O. W. WILSON
Dean
School of Criminology
University of California
Berkeley, California

CONTENTS

Criminal Detection Devices Employing Photography—*Harris B. Tuttle* 7

A Specialized Approach to Crime—*Ruth Biederman* 14

A Day's Work of the Press Police During the Second Empire in France—*Howard C. Payne* 19

Legal Aid, Public Defenders and Criminal Justice—*David Mars* 23

Some Major Developments Related to Chemical Tests—*Kurt M. Dubowski* . 31

Traffic Accidents, First Aid, and the Police Officer—*Carl B. Young* 33

IN CASE YOU'RE TRAFFIC MINDED
How Good Vision Tests Should Be Conducted—*Harold J. Bailey* . . 38

POLYGRAPH AND INTERROGATION—Edited by *Robert D. Steel* 46

Introduction to the Profession of Interviewing and Interrogation—*W. R. McKee* 46

The Certification Program of the Academy for Scientific Interrogation . . . 50

The Emotional Stress Meter—*Homer J. Dana* and *Claude C. Barnett* . . 52

The Drug Addiction Muddle—*Lawrence Kolb* 57

NEWS AND ANNOUNCEMENTS 64

IT'S NEW 66

Regular Departments

IN CASE YOU'RE TRAFFIC MINDED. Original articles and timely information about our Number 1 problem. See page 38.

POLYGRAPH AND INTERROGATION. Research developments, new techniques, procedures, and related subjects concerned with interrogation. See page 46.

IT'S NEW! A preview of new products, techniques, and materials for use in law-enforcement. See page 66.

NEWS AND ANNOUNCEMENTS of interest to all law enforcement personnel. See page 64.

Cover Picture

The Peace Officer's Gun. The silent companion and ready friend. The badge of authority and necessary "tool of the trade." Do you know how to handle your gun properly? See "Handling Revolvers" in a forthcoming issue of POLICE. (Courtesy, Harold Lambert Studios.)

POLICE is published bi-monthly by Charles C Thomas, Publisher, at 1201-05 Bluff St., Fulton, Mo. Published simultaneously in the British Commonwealth of Nations by Blackwell Scientific Publications, Ltd., Oxford, England, and in Canada by the Ryerson Press, Toronto, Canada. Annual subscription price: In the United States of America, U. S. Possessions, Pan-American Union, and Spain, $3.00; Canada, $3.25; other foreign countries $3.50. Single copies, 75 cents, postpaid. Copyright, 1957, by Charles C Thomas, Publisher, 301-327 East Lawrence Avenue, Springfield, Illinois, U. S. A. All reproduction rights reserved. Entered as Second-Class Matter, December 7, 1956, at the post office at Fulton, Missouri, under the Act of March 3, 1879. Printed in U. S. A.

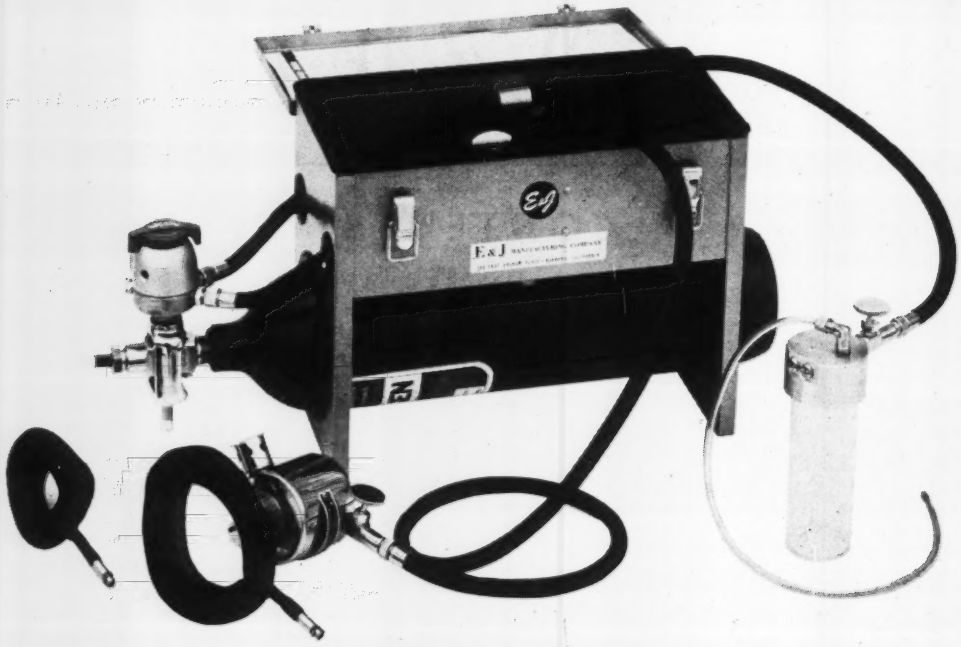
CHARLES C THOMAS · PUBLISHER · SPRINGFIELD · ILLINOIS

VOLUME I
NUMBER 3

1957

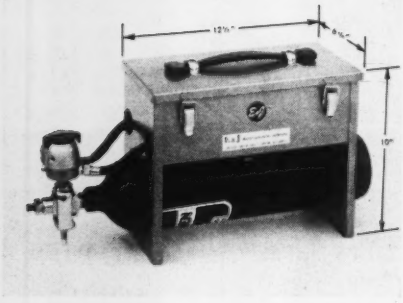
JANUARY
FEBRUARY

PATROL CAR EMERGENCY BREATHING KIT



for immediate application of modern, hospital-quality
AUTOMATIC RESUSCITATION (for the non-breathing person)
OXYGEN INHALATION (for the person breathing with difficulty)
POWER ASPIRATION (for removal of obstructing water, mucus, blood or vomitus from the mouth and throat)
—when indicated—until arrival of official rescue or ambulance services!

E & J EMERGIKIT



The E & J EMERGIKIT is completely self-contained and operated by its own oxygen power. It includes the famed E & J MICRO Resuscitator, an automatic aspirator, child and adult size face masks and airways, dust-tight case and complete instructions for use. Total weight, 21 pounds.

For emergency use in those first extremely critical minutes whenever breathing needs to be restored, E & J, world's principal producer of modern, automatic resuscitators, has created the Emergikit. Containing the same resuscitation instrument Rescue Squads and Hospitals throughout the world use routinely, it has been made remarkably compact (to store in small space and to carry easily to victim wherever located) and far lower in cost (to aid all authorities wanting effective basic equipment but heretofore stopped by both bulk and price).

PRICE COMPLETE, less oxygen cylinder available locally

$208.50 F.O.B. FACTORY

Mail coupon now for immediate information

E & J MANUFACTURING COMPANY
100 E. Graham Place • Burbank, California

Gentlemen:

- ☐ Please send me complete data on the E & J EMERGIKIT.
- ☐ Please arrange a free demonstration of the E & J EMERGIKIT.
- ☐ Please deliver one E & J EMERGIKIT as soon as possible.

Name_____

Address_____

City_____ State_____ Phone_____

Criminal Detection Devices Employing Photography*

By Harris B. Tuttle

EDITOR'S NOTE: *Harris B. Tuttle, lecturer, writer, and consultant on law enforcement photography for the Eastman Kodak Company, has been associated with the company since 1918. A native of Clarkson, New York, Mr. Tuttle attended Brockport Normal School; Mechanics Institute, now Rochester Institute of Technology; and the University of Rochester Extension School.*

Mr. Tuttle joined the Kodak staff on August 18, 1918, as a member of the electrical department at Kodak Park. From there, he was transferred to the Kodak Research Laboratories, and, in 1926, he joined the advertising department where he conducted all of the demonstrations of 16mm and 8mm films. Since January, 1938, Mr. Tuttle has been in the sales department as photographic correspondent, lecturer, and consultant in law enforcement photography.

He is a fellow and member of the Society of Motion Picture and Television Engineers, fellow and life member of the Royal Photographic Society of Great Britain, fellow and member of the Biological Photographic Association of America, fellow and honorary life member of the Photographic Society of America including the Technical Section and the Motion Picture Division, and a fellow and member of the Amateur Cinema League.

TRULY scientific means of criminal detection are no older than the last third of the nineteenth century but already range from the intricate techniques used in police laboratories to the rugged, reliable, on-the-spot devices required by practicing enforcement officers.

Photography can be valuable in both kinds of work. Its laboratory uses may easily be as technical as other laboratory operations, but out in the field it should perform its functions with a minimum of complexity.

This article describes several kinds of detection systems particularly suitable for employment with photographic equipment. It also lists some of the most effective ways in which photography, itself, can be put to work. These aren't theoretical ideas. All of them have actually been used in police activities and proven themselves under a broad variety of conditions.

SIMPLE ELECTRICAL DETECTOR SYSTEMS

For the ultimate in simplicity only four components are necessary: an alarm unit, a locking device to keep the alarm activated, a power source and some kind of triggering mechanism.

THE ALARM

This may be anything from a silent signal light at some distant control point to a really noisy gong or horn located either at the scene of the crime or somewhere else. An old-fashioned doorbell can be obtained for probably not much more than $2, while a large gong of the kind generally used by banks and factory buildings might be in the $20-$25 range.

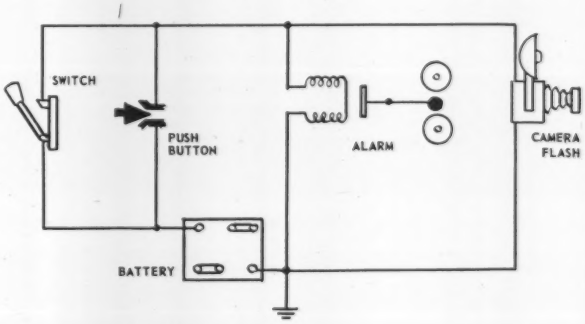


FIGURE 1. A basic open circuit alarm system with a flash camera wired in.

THE LOCKING DEVICE

For an alarm system to be at all effective it must operate continuously once the system has been triggered. To accomplish this, some sort of self-locking mechanism must be inserted into the circuit. In an open circuit system (one in which the intruder presses a button or closes a switch to complete the circuit and actuate the alarm), it can be attached to the actual triggering unit. Where relays are employed to allow use of low voltage and a closed circuit, it is possible to obtain them with a built-in locking feature. Where more than one point of entry is being covered by a relay system it is much more economical to have a locking device on the relay rather than individual ones on each switch. Self-locking switches and self-locking relays both cost around $2.50 to $3.00.

THE POWER SOURCE

Four No. 6 dry cells or, preferably, a single "hot-shot" unit will provide the 6-volt power supply satisfactory for most open circuit systems. They combine low cost with extreme portability and long life. Closed circuit types with their constant drain upon the power source are best operated from an automobile type storage battery although some relays, particularly the more expensive ones, are designed to run at very low current levels. For complex approaches in which amplifiers assist the sensing or

Address: Harris B. Tuttle, Consultant, Law Enforcement Photography, Eastman Kodak Co., 343 State Street, Rochester 4, New York.

* Courtesy of The Eastman Kodak Company.

triggering device, the system represents a power load of perhaps 25 to 50 or more watts not including the light source in photo-electric units. Here the commercial 115 volt AC service will offer least complexity and cost, but often presents special problems. If an alarm system is

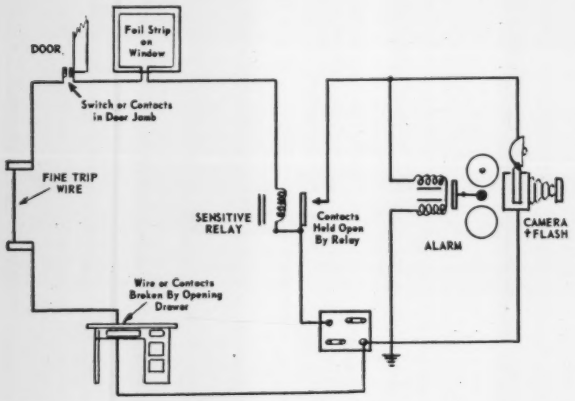


FIGURE 2. Closed circuit systems allow the employment of a wide variety of triggering devices. Note that the actual warning device is wired in separate open circuit which becomes completed when the closed circuit is broken.

powered by standard wall current, the removal of a fuse renders the entire system useless. This can usually be done quite easily. A common solution is to employ the 115 volt service to power the sensing system in a closed circuit with a separate battery or batteries to power the alarm. In this sort of hook-up any power failure on the main line triggers the alarm just as an actual intrusion would do. Of course, any normal interruption of electrical service will also set the alarm off and this eventuality should be weighed carefully before a decision is made.

THE TRIGGERING DEVICE

In open circuit systems, the simplest of microswitches or push buttons, booby-trapped so as to conceal their purpose, work quite efficiently. When a low voltage, closed circuit system is employed not only switches and push buttons can be used but also foil window strips and trip wires.

PHOTO-ELECTRIC SYSTEMS

Points of entry can be guarded by nothing more substantial than a beam of light energy, either visible or invisible. These beams may be made into part of an electrical circuit so that interruption of them will release a warning device.

The most serious problem with such systems is concentrating the light energy into an efficient beam to offset the reduction in intensity that occurs as light travels farther and farther from its source. An inexpensive condenser lens placed in front of the source of illumination will accomplish this satisfactorily. Such lenses (one with 5-inch focal length and 2-inch diameter can be adapted quite easily) are obtainable through optical salvage supply houses like Edmund Scientific Corporation in Barrington, New Jersey, for around $1.

The simplest form of photo-electric system can be made by mounting the light source and the photo-cell side by side in a single housing. It is desirable to have some shield between them to prevent stray light from the source activating the cell. If only one entry is to be covered, a flat red truck reflector or a mirror can be placed opposite the light source so it will bounce enough light back at the photo-cell to keep the circuit closed.

Where many entries are to be protected, a system similar to the one in Figure 3 can be established by using a powerful, well collimated light source and a series of carefully arranged mirrors.

Prefabricated photo-electric units or such units in kit form are readily available from several manufacturers. Radio Shack Corporation, 167 Washington Street, Boston 8, Massachusetts, lists the following items in its catalog:

Springfield K-40 Photoelectric Relay	$29.35
Springfield L-40 Light Source (For K-40 Relay)	14.65

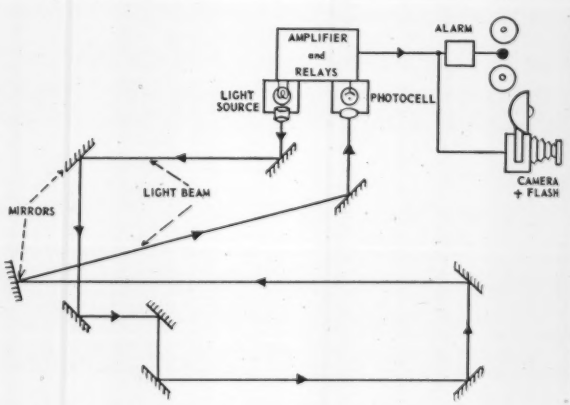


FIGURE 3. A photo-electric system can employ a number of mirrors to cover a large area with many entries.

Allied Radio Corporation, 100 North Western Avenue, Chicago 80, Illinois, and Radio Shack both offer a similar device which they list as:

Worner Model 69 Relay/Photo Cell Kit	$10.66
Worner Model 39 Exciter Lamp	6.43

These units and similar ones may be rigged to make them completely free from the effects of outside light. If, for example, the characteristics of the light source were very close to those of daylight, an intruder might break the beam during daytime but the circuit would not respond due to the action of daylight filling in on it from the sides. If, however, the light source has been adapted to emit illumination not likely duplicated under normal conditions, the system should be completely reliable.

This can be accomplished by the addition of a light "chopper" and by minor circuit changes. A radio service man should be able to do this for around $15.

Most commercially available photo-electric devices

are designed to operate on standard 115-volt AC current. If battery power must be employed due to a particular set of circumstances, the added components for adaptation should not cost more than $5. Again, a capable radio repair man can probably to the job.

RADIATION TRANSMITTER-DETECTOR UNITS

These devices can cover the entire area of a room with radio waves. Any motion or change within a room alters the radiation energy or resistance of the unit and triggers the system. It can protect against someone hiding overnight in a building to avoid detection devices at points of entry and then leaving in the morning after opening hours. It also guards against entries made through ceilings, walls and floors. These units involve essentially the same types of problems and costs that are associated with "ham" radio and other short wave equipment. Radar is one form of this general class of mechanisms and employs extremely high frequencies. Costs are comparatively high and it is difficult to imagine a system requiring an expenditure of less than $150. When such a device is being considered, it is recommended that the enforcement agency consult someone well versed in the principles of short-wave or UHF radio and also become familiar with Federal Communications Commission regulations regarding such outfits.

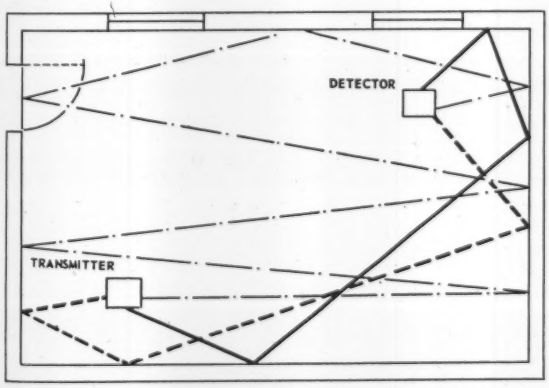


FIGURE 4. Radiation transmitter-detector units, although complex, offer excellent coverage of complete areas and will report not only entries but any other disturbances.

PHOTOGRAPHIC TRAPS

A flash camera can be wired into any electrical detection system. Its location must be selected carefully so that it covers the point at which the intruder will be when he triggers the system and do this from an angle affording a clear view of his face. This is relatively simple if only one entry is being protected but can present many complicated problems when a single system has many locations to cover. These instances require individual planning in terms of their peculiarities.

The camera must be set to give a good, sharp picture. The lens should be focused on the point at which the intruder sets off the alarm, while the exposure settings should combine to produce a negative of optimum quality, especially when enlargements are required. These settings will naturally depend upon the kind of flash lamp employed, the film in the camera and the distance from lamp to subject. It is always desirable, however, to use a shutter speed of 1/100 second or faster if the circumstances will allow. This freezes any normal subject movement and insures adequate sharpness.

Although many criminals will flee in surprise when the flash lamp goes off, one who manages to retain his composure will certainly attempt to find and destroy the camera. Because of this, photographic equipment should be concealed and protected as well as possible. It is often a good idea to plant a second camera and flash holder, preferably an inexpensive one, in some obvious place to save the one actually used.

An obvious method of diverting attention from the camera is to use an extremely loud warning device with the sort of locking mechanism mentioned previously. This often tends to distract a criminal's attention from the camera and flash.

When setting a photo trap as part of an open circuit system, the easiest plan involves wiring a shutter solenoid in parallel with the alarm, whether it be bell, buzzer or light. If the power source has an output of 6 volts there are any number of suitable solenoids made by suppliers of flash equipment such as Heiland, Graflex and Mendelsohn. Two kinds are obtainable: one screws into the cable release socket on the camera while the other has a small hook which pulls the regular shutter release. Either will work satisfactorily.

If the circuit is one involving standard 115 volt alternating current, a step down transformer and rectifier will be needed to supply suitable current for operating the camera. Rectifiers will also be needed unless AC relays are used in the sensing device and the alarm circuit has its own battery power.

Where the trap is of the closed circuit type it is merely necessary to include a relay whose contacts will close when the circuit is broken. This relay will then complete the alarm circuit, triggering both alarm and camera.

THE KODAK EKTRON DETECTOR

A form of photo-cell highly sensitive to infrared illumination, the Kodak Ektron Detector can be extremely effective in photo-electric alarm systems since it can be made to operate entirely on invisible forms of light energy.

The electrical resistance of the Ektron Detector varies depending upon the amount of radiation striking it. With some steady current passing through an Ektron Detector, any change in the amount of energy made by some person walking in front of it will alter the electrical flow. This alteration can be picked up, amplified, applied to a relay and used to trigger an alarm and/or camera, either movie or still.

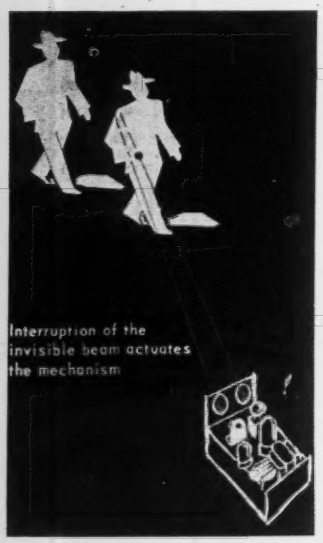


FIGURE 5. A system triggered by the Kodak Ektron-Detector operates as ordinary photo-electric systems do, but has greater sensitivity and may be used with invisible light energy.

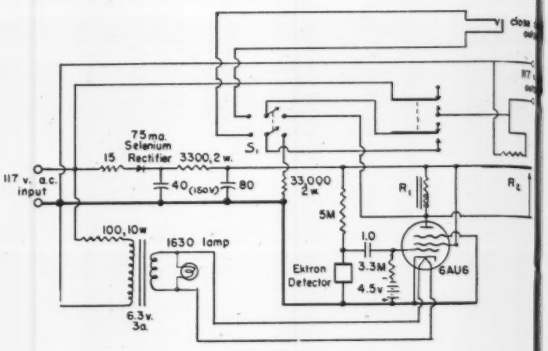


FIGURE 6. Circuitry for a photo-electric system built around the Kodak Ektron-Detector.

R_1 - Potter Brumfield LM 11, 5000-12
R_L - Amperite 115 NO 30
S_1 - DPDT Toggle

One employment of the Ektron Detector is pictured in Figure 5. A beam of light produced by placing a lamp near the focal point of a simple plano-convex lens (the lens is Kodak Repair Part No. 55840—List Price $5.50) can be aimed to fall on a flat red truck reflector button mounted on the opposite side of the entry or area to be guarded. The reflector should be aimed so that it directs most of the light back in its original direction. Again, a partition should be placed in the box to prevent direct radiation from the lamp from falling on the Ektron Detector.

The beam formed in this way will enter a second plano-convex lens mounted alongside the first. This second lens will concentrate the beam upon a single Ektron Detector.

The box containing the lenses, light source, Ektron Detector and attendant circuitry should be located not more than thirty feet from the reflector and be carefully concealed. Once it has been aimed and the reflector fixed, a dark slide or filter made from .060 inch black Plexiglas (type 20-22FP) may be slid in front of the two lenses, limiting the system entirely to completely invisible infrared operation.

In constructing a unit of this sort, the Ektron Detector must be placed so that the light falls on its sensitive area. This is the small gray portion between the electrodes.

The electronic circuit uses one vacuum tube (a 6AU6 pentode) to amplify the signal from the Ektron Detector and actuate the relay. A simple rectifier and resistance-capacity filter supplies direct current for the cell bias and the plate supply of the tube. The filament of the tube and the lamp used as a light source are both powered by a 6.3-volt filament transformer which has a dropping resistor in its primary to lower the voltage and extend the lamp and tube life.

When the unit is operating normally, with infrared beam from the lamp reflected back to the Ektron Detector, the vacuum tube does not pass current and the relay contacts are open. If an intruder breaks the light beam, the Ektron Detector sends a signal to the vacuum tube, which passes sufficient current to operate the relay. The double pole double throw selector switch allows either of two types of operation to be obtained.

With the switch in one position the breaking of the light beam will cause the relay to close momentarily, and supply power to the 117V output receptacle for a second or so and thus operate a suitable alarm device connected at this point. At the same time, contacts connected to the phone jack will also close momentarily. If an alarm circuit or camera set-up with its own power supply has been connected to the phone jack, this will, of course, trigger it.

With the switch in the other position, the breaking of the beam will again actuate the relay, which locks in and supplies power to the 117 volt outlet for about 30 seconds or longer until it is released by the time delay relay. Relays having intervals from 2 to 120 seconds are available. In this mode of operation the phone jack is disconnected from the relay and is inoperative.

For further data on the Kodak Ektron Detector and actual specifications, contact the Special Product Sales Division, Eastman Kodak Company, Rochester 4, New York.

KODAK HIGH SPEED INFRARED FILM

In many instances it is highly desirable to rig a photographic trap that will make a picture of an intruder entirely without his knowledge and without deterring him from the activity in which he is engaged. This can be accomplished with relative ease by employing Kodak High Speed Infrared Film and a special filter over the flash lamp.

The photographic films used for ordinary snapshots are sensitive mainly to the forms of light visible to the human eye. Kodak High Speed Infrared Film, however, is sensitive not only to part of the visible spectrum but to forms of light energy beyond the range of the eye. This infrared light can be used for picture taking.

Kodak High Speed Infrared Film is manufactured in 35mm size for use in still cameras and 16mm size for

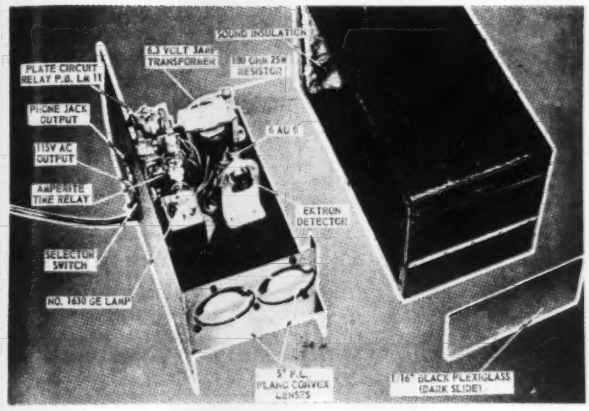


FIGURE 7. The actual circuit constructed from the circuit shown in Figure 6.

movie work. This automatically determines the kind of photo equipment necessary.

For still picture taking, ordinary flash lamps may be placed in the flash holder but the entire front of the reflector bowl must be covered with a layer of Kodak Wratten Gelatin Filter, either Number 87, 87C or 88A. These gelatin filters are available in five-inch squares or mounted between glass in circles or squares. They may be fastened over a five-inch reflector with cellulose tape.

With the proper filter shielding the flash lamp there will be no visible light when the lamp is discharged. There will, however, be sufficient infrared illumination to make a good photograph on Kodak High Speed Infrared Film. This photograph, by the way, will be somewhat different in quality than the more familiar kind made by visible light. Skin tones appear translucent, lips come out light and eyes seem very black.

Trial flash guide numbers that may be of some assistance in the tests that should be made before employing this infrared technique are:

	#5 lamp	#22 lamp	*100 Watt-second Electronic Flash Equipment*
1/25	220	420	300
1/50	200	350	300
1/100	160	300	300
1/200	120	240	300

These guide numbers assume the use of a four to five inch polished reflector and either a Number 87, 87C, or 88A filter over the light source. To use them, merely set a shutter speed, take the appropriate guide number and divide it by the distance from flash to subject. Your result will be the correct lens setting.

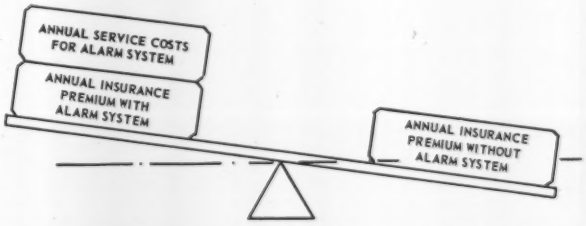
Since infrared illumination and visible illumination do not focus on exactly the same plane, some focusing compensation should be made when pictures are taken by infrared. If there is no red auxiliary focusing mark on your camera, a rule of thumb for test purposes is to shift the focus setting to a nearer distance by about the space between the 0-0 and fifty-foot marks.

If the lens opening is f/8 or smaller, something quite desirable even with ordinary film, there probably will not be any need to make a focusing correction since the great natural range of sharp focus that goes with a small opening will probably be sufficient to insure a well focused image of the subject.

Processing of Kodak High Speed Infrared Film exposed by flash requires intermittent agitation in a tank for eleven minutes with Kodak Developer D-76 at 68 F. Rinsing, fixation, washing and drying are the same as for conventional black-and-white photographic films.

COSTS

Many enterprises which really require the protection afforded by an electrical alarm system feel that the cost of installing the necessary equipment is too great for them to afford. In actuality, such systems pay for themselves in the lower burglary insurance premium rates charged by most insurance companies for premises guarded by these devices.


ANNUAL SERVICE COSTS FOR ALARM SYSTEM
ANNUAL INSURANCE PREMIUM WITH ALARM SYSTEM
ANNUAL INSURANCE PREMIUM WITHOUT ALARM SYSTEM

In nearly all instances the total insurance premium for a building without a burglar alarm system is considerably higher than the annual maintenance cost for the system plus the lower insurance premium made possible by it.

The substantial savings created in this way will pay for the installation and the installation will provide a more thorough form of protection than can be obtained by any means of comparable cost.

On the Crime Front

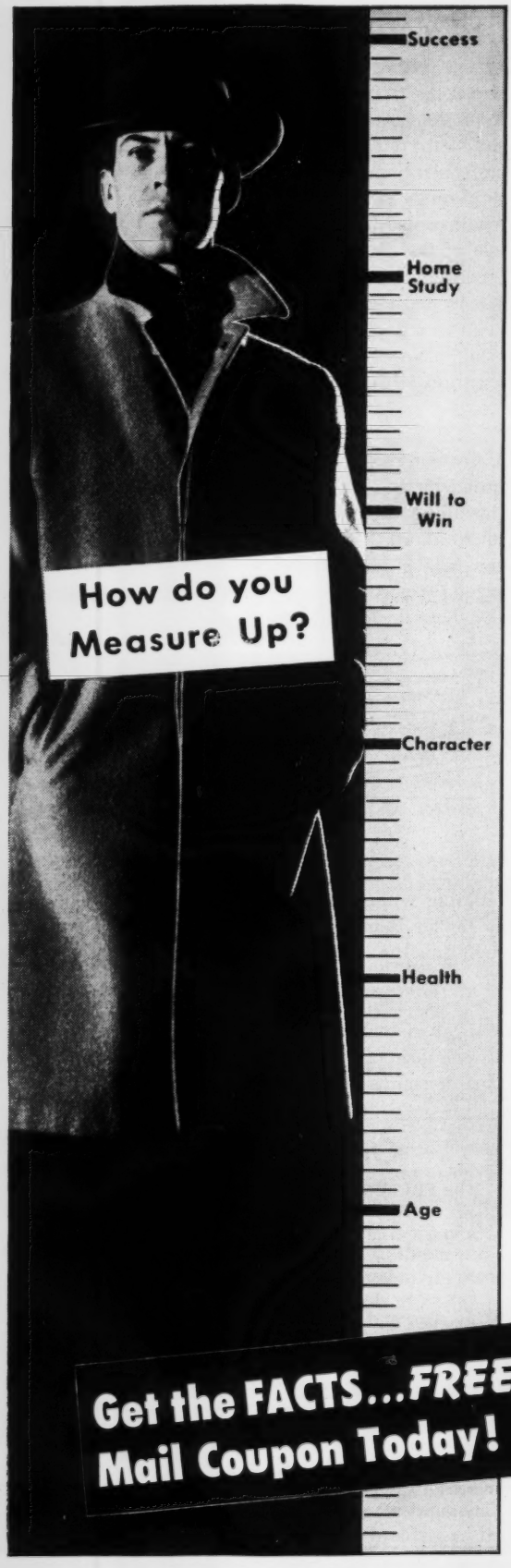
The FBI offered this picture of the first six months of 1956:

A major crime committed every 12.2 seconds.

A murder, manslaughter, rape or assault to kill every 4.1 minutes.

For every day, an estimated 37 persons were feloniously slain and 260 other felonious assaults were committed, 55 rapes occurred, and there were 4377 larcenies, 1463 burglaries, 164 robberies and 738 thefts of autos.

Larceny was up 18.5 per cent, negligent manslaughter 10.2 per cent, rape 6.8 per cent, burglary 4.7 per cent, murder and non-negligent manslaughter 4 per cent, and aggravated assault 2.8 per cent. The urban increase was paced by auto thefts, up 27.1 per cent. City murders rose 6.5 per cent.



FIND OUT FREE!

HAVE YOU GOT WHAT IT TAKES?

...to become a

CRIMINAL INVESTIGATOR
FINGER PRINT EXPERT?

FREE BOOKLET OFFER!

Everything to gain... Nothing to lose! The famous, fascinating BLUE BOOK OF CRIME will give you examples of "what it takes" to be a Criminal Investigator, a Finger Print Expert... "what it takes" to track down outlaws and thieves and leaders of the underworld. Read this exciting story of the triumphant battle of law and order against crime — and decide for yourself whether you've got what it takes. Mail the coupon immediately.

This is your opportunity to compare your qualifications with those of the professional detective, the Finger Print Expert, the Criminal Investigator. Decide yourself whether you have the physique, the determination, the courage and the character — to win. Simply mail the coupon.

OUR GRADUATES ARE KEY MEN IN OVER 800 IDENTIFICATION BUREAUS

The Institute of Applied Science has been teaching finger print and firearms identification, police photography and criminal investigation for over 37 years. It is a member of the National Home Study Council—pledged to highest professional standards.

I.A.S. students—trained through simple, inexpensive, step-by-step home-study lessons—hold responsible positions. They had what it takes to succeed in this steady, good paying profession.

Without spending a penny—see how you measure up for a profitable career in scientific criminal investigation. No obligation. Mail the coupon today. No salesman will call on you.

INSTITUTE OF APPLIED SCIENCE
(A Correspondence School Since 1916)
1920 Sunnyside Ave., Dept. 301, Chicago 40, Illinois.

INSTITUTE OF APPLIED SCIENCE
1920 Sunnyside Ave., Dept. 301, Chicago 40, Illinois.

Gentlemen: Without obligation or expense on my part, send me free your famous "Blue Book of Crime" so that I may read and learn *what it takes* to be a Criminal Investigator or Finger Print Expert. I understand I will also receive absolutely free information on your Home Study Course that has trained I. A. S. students and graduates employed in over 800 American Identification Bureaus.

Name_____

Address_____ RFD or Zone_____

City_____ State_____ Age_____

YOU MUST STATE YOUR AGE

WALKIE-RECORDALL
BRIEFCASE CONFERENCE RECORDER

4 HOUR • LIGHTWEIGHT • SELF-POWERED

RECORDS WITHIN 60 FEET
IN OR OUT OF CLOSED BRIEFCASE

NO WIRES • NO PLUGS

Fully Automatic—Continuous Up to 4 Hrs.

Surrounding Interferences Do Not Block Recording
Voice Clearly Reproduced

Equalizes Nearby and Distant Voices

SPECIALLY DESIGNED FOR LAW ENFORCEMENT AGENCIES

RECORDS NOISELESSLY AND WITHOUT SUPERVISION

Stationary or Mobile

INDOORS		*OUTDOORS*	
• Cells	• Office	• Field	• Train
• Courtroom	• Home	• Car	• Plane
• Interrogation-Room		• Scene of accident or crime	

Undetected Use in Car

Conceal recorder in trunk compartment. Slip mike under fabric in roof or wall of car. Inconspicuous "On-Off" hand-switch on steering wheel.

Acceptable as Evidence in Court

Walkie-Recordall is the only recorder that produces a permanent unalterable sound record. Non-Magnetic. Cannot be accidentally or otherwise erased.

- Two-way phone
- Reports
- Investigations
- Lectures
- Dictation
- Interviews
- Conferences
- Training

IT'S ALL IN THE BAG

VOICE-ACTIVATED "SELF-START-STOP"

Recording may be automatically started when voice or signal comes through the microphone or telephone. Recorder stops automatically within approximately 8 seconds after voice or signal ceases. THIS ELIMINATES SUPERVISION AND THE RECORDING OF SILENT PERIODS. Provision for monitoring from remote points.

SAME UNIT RECORDS AND TRANSCRIBES

"Start-Stop" for recording by hand, by foot or voice-activation; manual control and/or remote foot pedal for playback; "Back-Spacer" by hand and/or by foot; built-in loudspeaker; jack for earphones or external loudspeaker; provision for monitoring from remote point; controls for volume, tone and speed. Replays at stepped-up speed for reviewing. Speed may be slowed down to aid typist.

WARNING

BRIEFCASE RECORDER is patented in U.S.A. and foreign countries.

LOWEST OPERATING COST OF ANY RECORDER

INDEXED CASE HISTORIES
Indexed groove-finder permits immediate and accurate location for playback of any part of recorded text without rewinding. Subsequent recordings may be accurately started where the last recording ended, even after removing and replacing recording belt. This facilitates compilation of case histories accumulated at intervals.

PERMANENT AND UNALTERABLE RECORDINGS AT ONLY 3C PER HOUR
Recording belts are compact, non-inflammable, identifiable, mailable and easy-to-file for permanent future reference. Permanent file of original recordings needs no transcribing.

SELF-CONTAINED STANDARD DRY BATTERIES
LONG LIFE: Flashlight cells last 150 work-hours. "B" battery lasts 350 work-hours. Operates from self-contained batteries and/or powerpack for 110 Volts A.C.

Write for literature

MILES REPRODUCER CO., INC.

• 812 Broadway, New York 3, N. Y., Dept. FP9 •

A Specialized Approach to Crime

By Ruth Biedermann

EDITOR'S NOTE: *Mrs. Biedermann graduated from Northwestern University majoring in psychology and Sociology. Post-graduate work was taken in Social Service Administration at the University of Chicago. During the depression years she worked as a case worker and case work supervision with the Illinois Emergency Relief. In 1937, she joined the Chicago Police force as a policewoman and remained on the Department until August 1, 1954, at which time she was appointed as superintendent of the Illinois State Reformatory for Women.*

During the years Mrs. Biedermann was on the Chicago Police force she assisted in planning and instructing the first Policewomen and Matrons in-service training schools. In February 1947 she was appointed in charge of the Policewomen and Matrons and organized what is now known as the Woman's Division of the Chicago Police Department. This position was held until coming to Dwight, Illinois.

FOR nineteen years I have witnessed the children, who are now our prison population, grow up with parental neglect; the occasional warning by the truant officer; the more frequent admonishings of a policewoman or juvenile officer; and then the last-resort struggle by the Family Court—a series of unsuccessful foster home placements and then the reformatory graduating a boy or girl who returns to their original corner gang—bolder and wiser—to recommence their bravado criminal pursuits. Our youthful offenders, year after year, are increasing our prison population.

Somewhere we must ask ourselves "Where have we failed?" We have to admit our failure and look deeper into the conscience of our communities for the reason.

Address: Mrs. Ruth Biedermann, Superintendent of the State Reformatory for Women, Dwight, Illinois.

Specialized police approach to the crime problem and the development of good crime preventive programs in police departments has been necessarily slow in the past two decades and is still limited to a small minority of police forces who have sufficient numerical strength to support this operation.

We have emphasized that police must be trained to protect the child's interest and that special police technique is required in handling children's cases. Knowing that the child's first experience with the police may be a deciding factor in his future conduct, we have urged the organization of Juvenile Bureaus, Crime Prevention Bureaus or units of similar title to indicate that specially trained police officers and policewomen are using a sociological approach in the handling of youthful offenders. Since the police function must be law enforcement even when a child is concerned, it is generally recognized that youth bureaus must not turn themselves into one more social agency, but must by the nature of their work know more about delinquency than any other organization in the community. Police must concentrate on more curbstone schooling for children as well as for adults. This means stopping children from getting into trouble and from violating laws. A good law enforcement program for children means not only significant training for the specialized bureaus, but where every policeman will help continuously and endlessly by being the neighborhood educator and advisor to both children and parents.

We are already seeing the pendulum begin to swing back with the demand for more patrolmen on the beat—including the foot patrol and the personal contact by the officers on the street. Let's unite in keeping this trend moving. Let us demand more policewomen and juvenile officers and demand specialized training and higher educational qualifications. Let us bring the skilled knowledge of the sociologist and psychiatrist to the assistance of the "man on the beat" who first sees the neglected child growing up under tensions and abuse. Let us have more guidance for our children before the delinquency pattern has been set.

This is mainly done through: (1) diligence in patrol; (2) intelligent use of social and other agencies to aid individual children, and (3) through police leadership in community planning for delinquency patrol. Effective police approach must be gentle but firm—sympathetic understanding but without condonement. Friendly advice and admonition will usually be accepted by the child in the spirit in which it is given, without bluffing, or entrapment into making admissions.

It is an established practice in progressive departments in many of our larger cities, for the police after recognizing a problem to then refer the child or his parents to a social agency for study, the role by which social agencies can be utilized and prove helpful in preventing crime has too often been neglected. Our main failing in the past has been the fact that each social agency has worked independently of all others.

Bad housing and slum areas may be one factor in contributing to high delinquency areas—yet have your housing and slum clearance agencies been working hand in hand with your police and Family Courts?

Health factors are paramount and

Women's detention quarters, Chicago Police Department, where women are placed after arrest. (*Chicago Tribune* photograph.)

we do see a closer working harmony between visiting and public health nurses with social agencies, but too often there is cooperation with the police only when such assistance is asked for.

Family case-work agencies deal confidently and privately on individual problems, gathering their own body of factual information necessary for a good social and psychiatric study. Too often the very family who is the subject of their study is being involved or named in police reports with neither the police or the agency combining their knowledge toward a constructive conclusion.

Child protection agencies are concerned over the demoralizing aspects of the community as it relates to the child. Police departments are too often prone to accept the agency's constructive criticism on community conditions because of their own defensive attitudes.

Social work defined is a study of an individual in an effort to understand the multiple factors of the community, the home, the gang, as it affects the individual and then to redirect a pattern of behavior through friendly counseling, easing tensions and hostilities in a personality through self expression and by helping the individual to better plan his life and work in a socially accepted pattern. Is it not a logical conclusion, then, that each Police Department, which sees the offender at the onset of his delinquent career, should be the first to recognize the need for the cooperative assistance that other agencies can give?

The neglected child, the missing boy or girl, the youthful "toughie," the addicts and sporting girls of your city, the alcoholics and mentally ill are only a small part of the magnitude and scope of problems met daily by your police force. We have all felt the despair that comes with the realization of how inadequate our large maze of organizational setups—social, recreational, educational, medical and law-enforcement—have been in actually meeting the problems of a big city as we see it today. Each agency is, however, doing its part and we have not dedicated ourselves to our work if we allow discouragement to thwart an ever increasing effort to find a solution and to see our present mistakes, so that we might find and fill the gap needed to consolidate our present knowledge and organizational structure so it will accomplish the aims for which it was intended. (We can learn perseverance from the hoodlum and gangster who are never discouraged in their pursuits.)

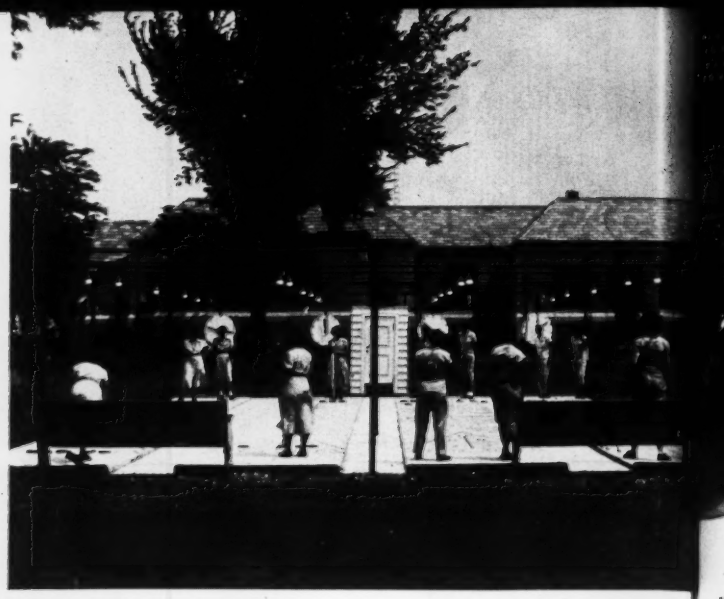
Community Fund drives and agency budgets are growing by leaps and bounds. Is it not time to combine our public and private resources in a cooperative program where every police officer will be trained to recognize problems best handled by another agency and to work hand in hand in close cooperation with the trained recreational director, the school, the church, the case worker and the psychiatrist?

Police Departments are but one aspect of the total law enforcement field. Other law enforcement branches and governmental bodies have progressed in their recognition of the need for sharing mutual problems in dealing with the offender through study, analysis, diagnosis and treatment in order to deal with criminals in the interest of the offender and his readjustment in society.

Juvenile and Family Courts have been established nation-wide with

Vocational training at Illinois State Reformatory for Women.

the accepted philosophy that the child grows, develops and gains social consciousness through wholesome group participation and that his conduct is a response to his conditioning environment. Therefore the conception of the Juvenile Court in its purpose is not punishment for the accused, but to ascertain why the offense was committed and to determine through scientific methods of investigation the general social conditions and to plan a course of treatment, correction and protection. The social factors involved in the commission of an offense are considered the underlying factors in the child's conduct. The Juvenile Court process is based on informal procedure and on modern theories of social justice.



Recreational facilities at Illinois State Reformatory for Women.

Many of our criminal laws are for the most part borrowed from the English common law and in theory punishing the individual's vicious will by imposing a penalty corresponding to the gravity of the offense. Most laws are therefore punitive rather than reformatory in character. Almost all of society's other safeguards for the individual seem somewhat in conflict with our criminal laws and many states have felt it necessary to make provisions in their constitutions for the enforcement of the criminal laws of the state by recognizing the need for reformation of the individual rather than a solely vindictive justice.

Today it is a general conception that Probation when properly administered is the most practical, economical and satisfactory tool of our judicial system in treating a large number of selected offenders. Our socialized courts recognize the necessity for a pre-sentence investigation, for proper supervision of the probationer by trained probation officers. Our courts are developing social and psychiatric units which are attached to the courts as advisory aids to the court. Behavior clinics utilizing the services of social service techniques and psychiatric evaluation have become an essential part of local, state and federal law-enforcement bodies.

Our correctional systems, reformatories and penitentiaries, utilize the skill of the doctor, the sociologist, the psychologist and the psychiatrist in gathering all available material and knowledge on each inmate for the purpose of diagnosis, treatment planning for the custodial control, and the rehabilitative treatment of the individual. This diagnostic program in our modern institutions aims at utilizing the period of confinement for preparing the inmate physically, vocationally, mentally and spiritually for his return to society. Prison authorities of today realize that careful classification of the inmate population, good personal management and the existence of a positive program of inmate activities, humane treatment, purposeful activities and planning toward self improvement do as much to prevent disturbances or escape attempts as do walls, fences and guards, and that they represent one of the fundamental aspects of a good security institution, as well as the first step toward the individual's progress toward readjustment to normal life patterns.

If this same study and effort in behalf of the offender was done on the police level, before the crime pattern has become a habit with the individual, how much more effective would our efforts at rehabilitation be?

From this institutional study of the individual and the gathering of

Educational facilities at Illinois State Reformatory for Women.

Vocational training at Illinois State Reformatory for Women.

all material from the community resources and social agencies, a complete study of each inmate is forwarded to the Parole authority, making possible the continuity of treatment and the continuing of this study of the personality make-up of the offender, which is so necessary before we can hope to help in his readjustment to society.

Adequate Parole Systems have proven that an intelligent, well trained and experienced parole board and a qualified staff of parole officers may provide better protection for society than any other method of release from prison. Good Parole procedure operates in complete coordination with all community resources—the departments of health, mental hygiene, welfare, educational, recreational and public safety groups. Parole officers must generally have a background and training in social science and psychology.

Should we not deduce that the police officer has a greater need for knowledge and training and understanding of the offender before he has been sent to prison? The entire field of law enforcement, judicial action, and the correctional process is set in motion by the work of the policeman on the beat. Our courts handle those whose patterns of crime have become more fixed and desperate; yet our court, our penal institutions and our parole systems have recognized the value of the utilized knowledge of the trained sociologist, the social worker, the psychologist and the psychiatrist—the same procedure as has been developed in our community social agencies. How much more urgent it is for each patrolman to recognize the important role he plays in the community and in each arrest he makes in determining the ultimate success or failure of the individual.

We have seen the individual received into the penitentiary who is bitter and hostile toward the police, who then transfers this feeling of hatred to all authority, making it difficult for the diagnostic and treatment process to start its work of readjusting the individual to the higher moral concepts of society. We have seen other policemen who can arrest an offender and carry out their duty to society in a manner where-by the individual realizes he must answer for his own conduct and action without blame or hostility toward the arresting officer. This type of an arrest is the beginning of the proper treatment program for the individual and facilitates the planning by the courts, and the correctional or parole systems toward a wholesome and successful rehabilitation of that individual.

With police training aimed at this type of understanding and handling of each arrest we can then—and then only—begin a period of greater understanding and cooperation with other social agencies. This in itself is, in the broader sense, crime preventive work and must be universally understood and practiced in all branches of police work not only in the field of youthful offenders, but with all adult violators. The majority of adult offenders need help, for many are emotionally unstable, inadequately trained to cope with the multiple conflicting pressures of society.

We can not leave rehabilitation up to the penal institutions alone. If we do we will continue to lose the battle against crime. We must start long before they reach the institution. But in addition to greater efforts in behalf of the early life of the child, we must have further planning and legislation for post-institution supervision. We must make plans for more probation and con-

Recreational facilities at Illinois State Reformatory for Women.

tinuous supervision of the offender in the community. Daily we see the long line of offenders charged with larceny, prostitution, assault with a deadly weapon, investigation of narcotics, etc., discharged by the court or given short sentences, with no plan for supervision, nothing done to prevent a repetition of the same offense or the commission of a graver offense. Let us demand that our courts set up good supervision facilities for Probation and let all offenders prove their intentions through living by the probationary code after their appearance in court or their release from a short jail sentence.

I have seen many girls leave the Illinois State Reformatory for Women under parole supervision and make good. They know when they leave that they have a job to go to, a place to live and that they must obey the parole rules or return to prison. They know they have been trusted and that it is their chance to prove themselves. On the other hand, I have seen many others leave the institution at the "expiration of sentence" with no definite plans for the future. Before they leave, they have their connections made with the underworld by their own "grapevine" method. A premium is placed on their bodies as a "virgin" from confinement, and they are sought out by the pimp, panderer or dope peddler on the day of their release for a big price. Girls leaving the prison without supervision have been put on the bus for their destination, and we have seen as many as three and four cars with men follow the bus out of town. How long do these girls refrain from criminality? This doesn't happen when a girl leaves on "parole."

I firmly believe we must change our laws so that every prisoner is released from prison under parole supervision. Every sentence should be a parolable sentence. Parole supervision should be granted flexibility by our courts so that it could be extended, where it is clear that a person needs the crutch of supervision to keep her stabilized in the community. With good Parole supervision following every prison sentence, I'm positive that fewer offenders would return to crime and prison, and that only then will we gain the full value of the Rehabilitation programs now offered in the Illinois prisons.

Nations today are experimenting in the field of education by student and teacher exchange programs which have brought mutual interest and understanding and respect between nations and between universities in our own country. Why can't our police programs reach out and exchange Police training personnel, and exchange personnel with agencies, courts or probation departments where each could frankly learn how "others see us" and would be in a position to better study the practices and techniques of others in the related fields of science? I believe an experiment along this line would bring advantages not only to police officers, but to other agencies, and would extend mutual understanding of the benefits to be received from scientific knowledge and experience of other specialized fields of endeavor, such as mental health, welfare and child-study agencies.

In spite of our great development in technology and scientific aid in solving major crimes we are still unable to stop the ever growing crime rates. Does this not indicate that we may be putting the cart before the horse in our planning for treatment of the individual? Should we not re-evaluate our total efforts in our communities in order to better meet the treatment at the level of the first offender in the community rather than wait for the courts and agencies to follow this course after delinquent behavior has become a fixed characteristic? Shall we not cooperate more closely with the character-building agencies of our communities, our schools, our child-welfare and health agencies, our protective agencies and guidance clinics and work with them for the treatment and planning for our youth before they become delinquents? Shall we not train more policemen in understanding and recognizing personality irregularities, emotional tensions and social hostility in order that they may know when and where the adjustment of young people depends on the community's recreational, counseling, vocational, health and psychiatric services?

Let's cease to laugh or criticize what other agencies are doing and cooperate in bringing their knowledge and program to a community level where it will and can be of greatest value to us and the community. We then will be in a position to make progress toward reducing our present crime rate.

Home-like cottage residence plan is used at the State Reformatory for Women at Dwight, Illinois, where rehabilitation efforts are of foremost concern.

A Day's Work of the Press Police During the Second Empire in France*

By Howard C. Payne

EDITOR'S NOTE: *Dr. Howard C. Payne, Associate Professor of History at the State College of Washington, Pullman, Washington, and a Fulbright Research Scholar, has engaged in extensive on-the-ground research in France and has been especially interested in the Third Napoleonic Period of French history, more particularly in the characteristics of police controls during that time. While somewhat removed from the problems of today, his article will prove of unusual interest in revealing some of the practices which were in vogue as standard procedure at that time.*

THE twentieth century has seen more than one dictatorship based, in part, upon a political police. Nineteenth century Europe provided some earlier, if far milder, models of political police techniques which in some respects were precursors of the modern police state. One such model was that of Napoleon III during the Second French Empire (1852-1870).

In the nineteenth century, France lived within the framework of a highly-centralized administrative mechanism, a legacy of Napoleon I. Such a centralized administration offered rich possibilities for a dictator intent upon developing an all-seeing and all-reporting political police. In lieu of local self-government, the vast French administrative bureaucracy, ultimately responsible only to Paris, spread itself over the country, touching in one way or another many of the most vital aspects of the Frenchman's daily life.

Through the myriad channels of the bureaucratic hierarchy—and particularly through the 12,000 agents of the Ministry of Interior—extensive police powers normally flowed to a degree perhaps astonishing to those accustomed to the decentralization of a federal system. In "abnormal" times—and such was the interlude of the Second Empire—an alert dictator could easily elaborate the police powers already inherent in this unitary governmental structure. In that respect Napoleon III was no laggard; the Second Empire saw considerable development and transition in the history of the French police.

The detailed story of French police history between 1852 and 1870 is still lacking. Large gaps in the records exist, since political police are for obvious reasons often poor conservationists. Yet the French historical archives, both national and regional, contain much evidence which will illumine the political role of the police under the Second Empire. A glimpse at just one aspect of political police—surveillance of the newspaper and periodical press—offers a case in point.

Address: Dr. Howard C. Payne, College of Arts and Sciences, Department of History, Pullman, Washington.

The annals of modern dictatorship show that political police of necessity seek to curb the spontaneous expression and organization of public opinion in all matters to which central policy may currently be sensitive. Defined in inclusive terms, jurisdiction of the French political police embraced "not only political news and discussions but also everything concerning politics."[1] Politics *(matières politiques)*, in turn, was legally interpreted in a series of judiciary actions to include "everything pertaining to the government and to the administration of the state and each of its legal divisions and subdivisions."[2] Hence there was little of a critical nature that could appear in print without falling within the category "political," if police authorities chose to make it so.

Accordingly, among their varied political functions, the police of the Second Empire paid careful attention to the press in all its forms. Armed by the severely repressive Press Law of 17 February 1852, which "completed" an arsenal of press control legislation accumulated since the first Napoleonic empire, the imperial police administered a daily surveillance and censorship of books, newspapers, periodicals, emblems, posters, stamps, and sundry other aspects of "publication." For the newspaper press alone, this police task was formidable. In October 1863, for instance, over one thousand newspapers—318 "political" and 761 "non-political"—were being published in France.[3] Furthermore, hundreds of foreign papers circulated in the country. Every edition of these journals had to be scanned by the police before being entrusted to the French reading public.

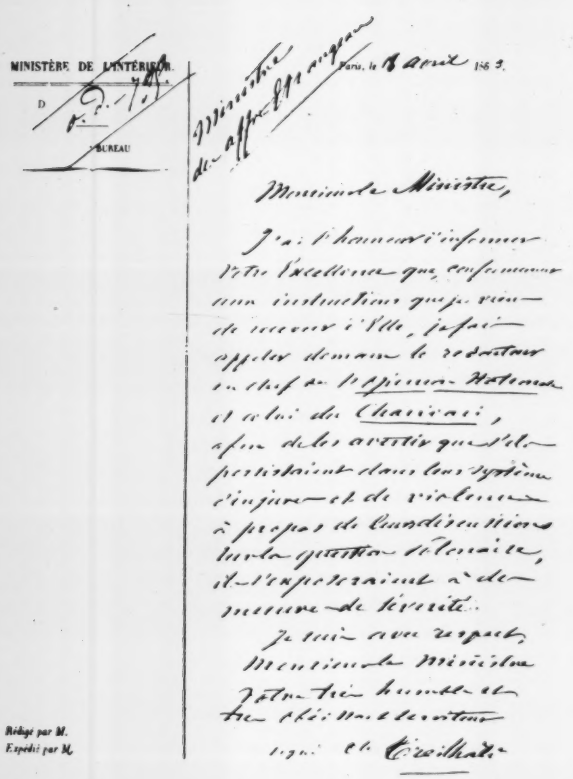
In applying restrictive press legislation, the imperial police were guided by administrative doctrine allowing a wide latitude of decision. As one high police official vehemently put it, using actual policy of the 1850's as his example, when a journal committed an offense clearly defined by existing laws, the police had merely to turn the case over to the magistracy. But, he emphasized, really effective political policing of the press lay in judging and acting upon the intangibles, in going beyond the letter of specific laws. The press police, he pointed out, considered

* This is a fragment of a study made possible by a Fulbright Research Award to France, 1953-1954, and by a grant-in-aid from the Committee on Research of the State College of Washington.

[1] Achille Rabasse, *Police municipale* (Paris: Library of the Préfecture de Police; bound MS, 1872), p. 58.

[2] Decision of the *Cour de Cassation*, 1 July 1852, *Ibid.*, pp. 58-61.

[3] Notes of the Third *Bureau* of the *Cabinet* of the Ministry of Interior, 12 January 1865, *Archives Nationales* (hereinafter written *AN*), F[18] 294.


MINISTÈRE DE L'INTÉRIEUR.

BUREAU

Paris, le 18 août 1863.

Monsieur le Ministre,

J'ai l'honneur d'informer Votre Excellence que, conformément aux instructions que je viens de recevoir à l'instant, je fais appeler demain le rédacteur en chef de l'Opinion Nationale et celui du Charivari, afin de les avertir que s'ils persistaient dans leur système d'injures et de violences à propos de la question polonaise, ils s'exposeraient à des mesures de sévérité.

Je suis avec respect, Monsieur le Ministre, Votre très humble et très obéissant serviteur

signé Ch. Treilhard

Rédigé par M.
Expédié par M.

This office copy of a letter by Count Treilhard, appointed Director of the Press in 1862, to the Minister of Foreign Affairs, illustrates the liaison between the press-police and other high officials of the government.

Translation

Paris, 18 August 1863.

"Monsieur le Ministre,

I have the honor to inform Your Excellency that in accordance with the instructions I have just received from you, tomorrow I am having the editor-in-chief of the *Opinion Nationale* and that of the *Charivari* called in for the purpose of warning them that if they persist in their system of injurious and violent comments on the Polish Question, they will expose themselves to measures of severity."

Source of the document:
Archives Nationales (Paris), F[18] 300.

. . . the spirit, import, and influence of a given newspaper article or polemic. They didn't wait until a specific legal offense had been clearly committed. They knew very well that for such offenses the courts sufficed.

Rather, the press police struck against "hidden attacks, allusions, and all those things that, despite their real gravity, the common law could not touch." An attitude deemed to be a "hostile tendency" on the part of a given journal was, according to this doctrine, sufficient grounds for police action.[4]

Effective application of such doctrine required a centralized police organization and specialized personnel. Both were provided by the Ministry of Interior in Paris, to which all French police were ultimately responsible. In addition to regular and special agents on duty throughout the country, the Ministry maintained a special press-police office in Paris for the daily scrutiny of publications. Variously organized during the Second Empire, in 1861 this branch of police was divided into two parts. A *Direction de l'Imprimerie et de la Librairie* policed the non-periodical press. The *Direction de la Presse*, under Comte Treilhard, was established for the special examination of newspaper and other periodicals.

The *Direction de la Presse*, in turn, was organized in eight sections. Three sections were devoted to the French press, covering respectively the Paris political press, the provincial political press, and the French non-political (as defined in existing legislation) press in both Paris and provinces. Four other sections processed foreign publications in the following categories: foreign newspapers in the French language and French colonial papers; the English language press; German, Dutch, Slavic, and Greek; and Italian, Spanish and Portuguese. An eighth, or "control," section handled, analyzed, and routed the diverse reports and recommendations issuing from the seven examining sections. Aside from their analysis of newspapers, the four foreign-press sections also examined brochures and books entering France, samples of which were sent daily by the *Direction de la Librairie* and postal authorities.[5]

A casual visitor dropping in on a weekday of 1863 to watch the *Direction de la Presse* at work would have entered a beehive of activity beginning at eight in the morning. Here, in their Right Bank offices at 41 Rue de la Ville l'Évêque, adjacent to the Ministry of Interior, a surprisingly small number of low-paid police specialists accomplished a very large task.

Section 1, for instance, headed by the very busy M. Germain (sub-chief of the first class), would be found examining that day's editions of the Parisian press. Germain, with only four assistants, worked two shifts daily. In the morning, sixteen Paris dailies were carefully scrutinized; between five and seven-thirty in the evening, seventeen others passed over the examiners' desks. On the evening after publication, seven major *revues* were scanned for their political commentary. M. Germain's four assistants took turns checking the *Courrier du dimanche*, the sole Sunday newspaper. Two kinds of *résumé* were made, one very brief and the other extensive. The latter were prepared in twenty-seven copies for distribution to, among others, the Minister of Interior and the *Directeur de la Presse* at eight p.m. Besides checking this voluminous work for accuracy, M. Germain was required to enter ". . . in a register the important articles, official documents, facts, and opinions published in the Paris press that have a special interest for the Minister of Interior." This register, it was officially asserted, "will be extremely valuable for investi-

---

[4] Directeur de la Presse, "Note sur la Service de la Presse," to Minister of Interior, 1868, in *Documents pour servir à l'histoire du Second Empire . . . 1851-1870* (Paris: E. Lachaud, 1872), pp. 225-41.

[5] Unless otherwise indicated, these and subsequent details of the *Direction de la Presse* are drawn from a *dossier* entitled, "Détails, par section, du service de la presse française et étrangère," *AN*, F[18] 310.

gations. One will find unique data in it on the general interplay of ideas and interests in the Parisian newspapers." To fill their idle hours, Germain's four helpers read at home all the articles (aside from straightforward political commentary) in the seven major periodicals already mentioned.

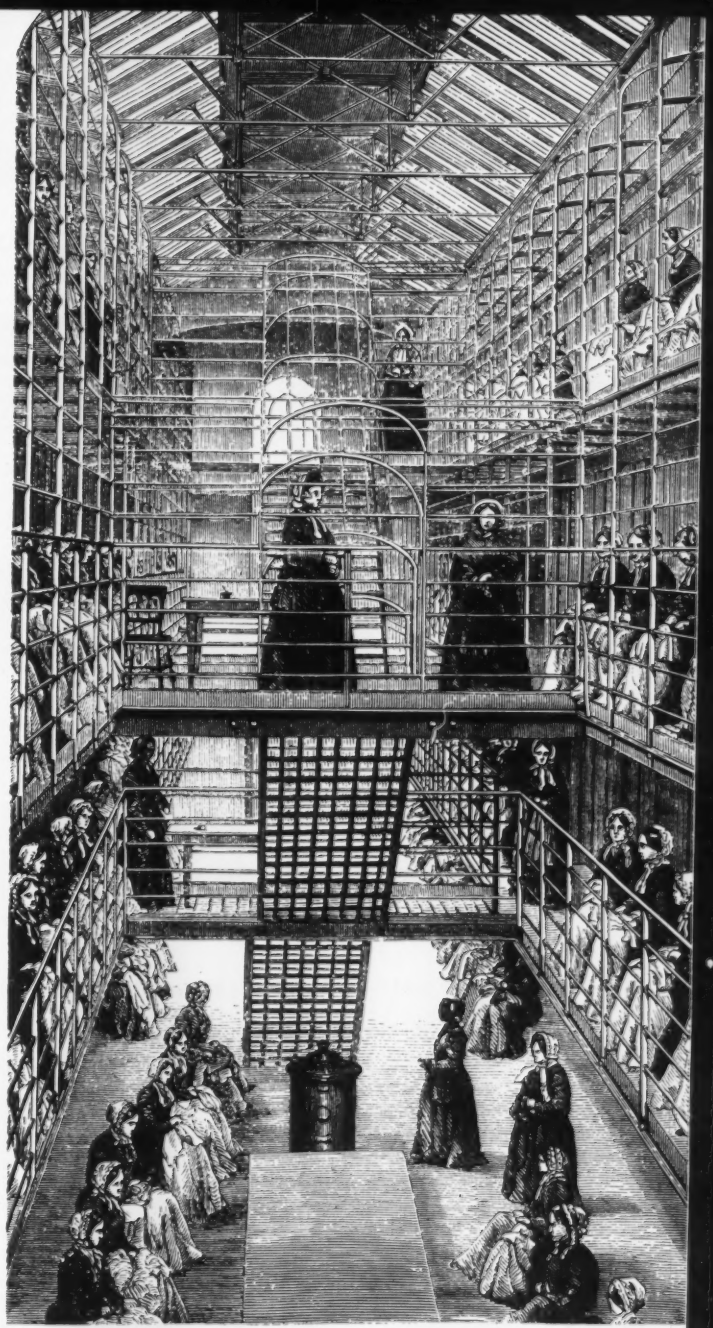
A seven-man staff in Section 2—for the French provincial press—examined 546 papers during the week, averaging 180 editions daily, completing their scrutiny by noon. Each reader wrote a brief *résumé* of items interesting from three viewpoints: the general political outlook, administrative significance, and local interest. M. de Lacroix, a counterpart of M. Germain, then checked these reports for accuracy, joined them together with copies of the journals concerned, and passed the whole along to his superior for approval before the work of copying and entering in registers began. Lest his afternoons drag, M. de Lacroix also corresponded on press-police matters with eighty-nine prefects in charge of the eighty-nine *départements*, or principal administrative districts, of France.

In the third section, the non-political press, 750 papers—averaging 45 daily—were perused for possible unauthorized and hence illegal excursions into politics or other taboo areas of discussion, including "social and political economy," or for possibly unacceptable attitudes toward "morality and religion." Two examiners administered this task.

Four additional sections applied themselves to the foreign newspapers, laboring through the week "without counting the hours, whenever the work demands." Four men read 120 journals from Belgium, Switzerland, and the French colonies. The five-man Anglo-American section examined 334 journals, averaging 150 every day, including 147 American and 38 Canadian newspapers. Six hardworking—and, apparently, versatile—censors read and checked a stream of 403 papers (averaging 200 daily) printed in German, Dutch, Flemish, Swedish, Danish, Rumanian, Magyar, Polish, Russian, Czech, Croatian, Serbian, Bulgarian, and Greek. Completing the foreign press service, three men processed a total of 230 Italian, Spanish, and Portuguese publications.

From a total of 1087 foreign journals, then, the central press police gleaned archives of information, slashed certain passages with red-pencilled disapproval, decided which editions to confiscate, and decocted informative bulletins for the daily guidance of the Emperor, the Minister of Interior, and other high officials. Adding the 1319 items handled by the first three sections, we find the harrassed employes of the *Direction de la Presse* committed to the recurrent exploration of 2,406 newspapers! Seldom have so many Frenchmen been protected from so much newsprint by so few policemen!

Yet the results of this daily inquest were not intended solely for the negative purposes of police repression. Since the earlier days of the regime, the mission of the press police had been defined as essentially two-fold: that of "active and incessant surveillance of . . . all the manifestations of thought," and also the "obligation to give a directive impulsion" to the press for the molding



Female convicts at work, during the silent hour, in Brixton Prison. (Courtesy of the Bettmann Archive.)

of public opinion in conformity with governmental and administrative policy.[6] Thus the various *résumés*, registers, special reports, and lists of articles emanating from the *Direction de la Presse* comprised a stockpiling of information useful to the Emperor and his chief officials in policy-making and simply keeping abreast of the times. The routine reports compose[d] for the Emperor were for such purposes. They read like a *faits divers* section of some cosmopolitan journal specially edited for the edification of rulers sensitive to items that casual readers

[6] Direction de la Presse et de la Librairie, special report of 7 December 1859, to Minister of Interior, *AN*, F[18] 310.

CREIGHTON

POLICE SHIRTS
For Year-Round Comfort

SPECIAL FEATURES
- Badge Holder
- Pencil Pocket
- 2 Flap Pockets
- Shoulder Straps

Available in the new type comfortable Short Sleeve Model or Long Sleeve Model which can be worn with or without tie

fabrics by **REEVES**

2x1 COMBED POPLIN
Mercerized, Sanforized, Tough Poplin in a Variety of Police Colors. Nickel Grey — Aero Blue — Navy Blue — and others.

CREIGHTON SHIRT CO., INC., NEW HAVEN, CONN.

might dismiss with passing interest. On any given day, diverse reports were sent by the press police not only to Napoleon III but to others on a long list of officials—each report being editorially pointed toward the special interests of its recipient.

On 21 November 1861, for instance, the *Direction* circulated thirteen different analyses, each edited for its special destination.[7] The Emperor received reports on the Parisian press, both morning and evening; the English and German press, respectively; and a general analysis of foreign newspapers printed in the French language. He learned, for example, that the Parisian dailies, *Constitutionnel* and *Pays,* had run articles attesting a public desire to see the Bank of France issue fifty-franc notes. Other papers had criticized certain financial policies of the Bank, *La Presse* demanded that French troops, sent to guard the Papal authority, immediately evacuate Rome. Reading further, the Emperor could ponder some guarded but hostile criticism of French press legislation in the *Journal des Débats* and learn that the *Siècle* dared to protest the Government's financial policy in the name of French taxpayers. Most of the foreign news, however, dealt with the political unification of the Italian peninsula, then reaching a climactic stage under rather fumbling French auspices.

The general report on the foreign press, to cite another example, was broken down into nine sub-categories: France; France and England; Italian affairs; situation of Austria; Austria and France; Austria and England; Prussia; Portugal; and Madagascar. Each category was annotated by references culled from the various foreign journals examined by police during that day. It was noted, moreover, that current editions of three foreign papers had been forbidden circulation in France. The English *Daily Telegraph* (edition of 20 November) had offended by urging the French people to profit from the currently waning prestige of the Emperor in order "to reclaim old liberties." The German *Börsenhalle* (Hamburg, edition of 17 November) was banned for "offensive criticism" of the French parliament; and the *Gazette d'Augsbourg* (edition of 20 November) earned its punishment by criticizing the French local administration system and by "alarming insinuations" on various other matters.

Without multiplying examples further, it can be seen that a typical day's work at the *Direction de la Presse* in the Paris of the early 1860's was considered by the authorities as a key function in an extensive political police which altogether performed a thousand other tasks concurrently. The effectiveness of the press police as a prop for dictatorship can be judged only in the larger context of the Second Empire's history. That history ended in 1870, not because of internal opposition eluding the French political police, but under the impact of Prussian attacks in the Franco-Prussian War.

[7] Copies of these are grouped in a *dossier* marked, "Travail d'une journée fait à la Direction de la Presse, 1862"; *AN*, F[18] 310. Actually, the documents are all of the date 21 November 1861.

Legal Aid, Public Defenders and Criminal Justice

By David Mars

EDITOR'S NOTE: *Professor Mars received the A.B. (cum laude), A.M. and Ph.D. degrees at Rutgers University. While at Rutgers, he was Research Assistant in the Bureau of Government Research for two years and Lecturer in Political Science for one year. Since the fall of 1952, he has been an Instructor in Government and International Relations at the University of Connecticut. His efforts in the field of criminal law have included an article on Connecticut public defenders, which appeared first in* State Government, *and which was read into the* Congressional Record, *and another article on public defenders, which appeared in the* Journal of Criminal Law, Criminology, and Police Science. *He has also published articles in the general field of state and local government, and in the field of industrial development.*

MANY people are involved in the administration of criminal justice. There are first of all the police officers who apprehend the lawbreakers and who may do some questioning. There are the prosecuting and district attorneys who present the states' case against the lawbreaker. There are juries, both to indict suspected lawbreakers—the grand jury—and to find the facts in trials in which these suspects are being prosecuted—the trial jury. There are judicial officials of various sorts, including the magistrates who commit, bind over, and conduct preliminary hearings, the trial judges who preside over criminal trials, and the appellate justices who review questions of law when presented to them on appeal. Finally, there are the different officials charged with the execution of criminal sentences, whether this consists of levying fines, imprisoning convicted persons, or putting persons to death in cases of especially serious crimes.

Address: Professor David Mars, Box U-24, Storrs, Connecticut.

Thus far, what has been described may be characterized as the machinery for the administration of criminal justice as seen from the state's point of view. While it is true that police officers, prosecuting attorneys, and judges are supposed to attempt to protect and to vindicate innocent persons as zealously as they seek to prosecute and to punish guilty ones, they often construe their primary responsibility to be the apprehension and the punishment of violators of the law. This leaves to be considered the machinery which exists for the purpose of trying to exculpate the person charged with committing a criminal act.

From the point of view of the individual criminal defendent, the administration of criminal justice centers about one person: his defense counsel. It is the duty of this counsel to fight to the limits of his strength and talent on behalf of his client, if he believes him to be innocent. If he believes his client to be guilty, the defense attorney's responsibility is to see to it that his client is afforded every protection granted by the statutes and the constitution in his jurisdiction, to the end that there may be a disposition of the case in which the interests of both the individual defendant and the state are protected. The defense attorney may also in good conscience try to secure for his client as light a punishment as possible.

One occasionally hears of a wealthy criminal defendant, perhaps a big-time gambler or racketeer, flanked in court by a corps of high-powered legal counsel, any one of whom may earn five or ten times as much as the one attorney representing the state. This picture, however, is by far the exception. The majority of defendants in the criminal courts of this country cannot afford to hire private counsel and thus must face the state's awesome machinery of criminal justice with little or no aid, advice, or comfort.[1]

To minimize the inequities inherent in such a situation and to provide all persons without means at least some rudimentary type of legal assistance, both the federal government and all the states have made some constitutional, statutory, judicial, or administrative provisions for counsel for indigent persons charged with criminal acts.

As far as the federal government is concerned, the Sixth Amendment is regarded as a more or less absolute guarantee of the right to counsel in criminal cases. This amendment, which reads in part, "In all criminal prosecutions the accused shall enjoy the right . . . to have the assistance of counsel for his defense" is further strengthened by Rule 44 of the Federal Rules of Criminal Procedure, which provides, "If the defendant appears in court without counsel, the court shall advise him of his right to counsel and assign counsel to represent him at every stage of the proceeding unless he elects to proceed without counsel or is unable to obtain counsel."

The right to counsel in criminal cases in the federal courts is very

[1] An estimated 60% of defendants in criminal cases are unable to employ counsel. In 1947, approximately 97,000 persons who could not afford a lawyer were involved in serious criminal cases. Of this number, 22,000 were assisted by public or voluntary defender organizations; 36,000 received "the frequently inadequate services" of court-assigned lawyers; and 38,000 went without any form of legal aid whatever. (*See* Emery A. Brownell: *Legal Aid in the United States.* Rochester, The Lawyers Cooperative Publishing Co., 1951, p. 86.)

DICTATE REPORTS ACCURATELY-PROMPTLY!
make your car, boat or plane a "rolling office"
with ATR INVERTERS
for changing your storage battery current to A.C. Household ELECTRICITY Anywhere
... in your own car!
mounted out of sight under dash or in trunk compartment!
EASY TO INSTALL
EASY TO OPERATE
ATR INVERTERS
especially designed for operating standard 110 volt A. C. . . .
• TAPE RECORDERS • DICTATING MACHINES
• WIRE RECORDERS • ELECTRIC RAZORS
for
• EXECUTIVES • OUTDOOR MEN
• SALESMEN • REPORTERS
• PUBLIC OFFICIALS • FIELD INSPECTORS
• POLICEMEN • DOCTORS
• FIREMEN • LAWYERS, ETC.
See your jobber or write factory
√NEW MODELS "A" Battery Eliminators, √NEW DESIGNS DC-AC Inverters, √NEW LITERATURE Auto Radio Vibrators
ATR
AMERICAN TELEVISION & RADIO CO.
Quality Products Since 1931
SAINT PAUL 1, MINNESOTA, U. S. A.

well established. In fact, the Supreme Court of the United States has held that the Sixth Amendment has the effect of withholding, in all criminal cases, a federal court's power to deprive a person of life, liberty, or property unless he has had the assistance of counsel during his trial.[2]

Every state constitution except that of Virginia contains a provision with regard to the right to counsel of criminal defendants. These constitutional provisions are, however, generally narrowly construed to mean simply that the criminal defendant has the right to appear in court and to defend himself with retained counsel. In some cases, the reason for the narrow interpretation is the fact that there are statutes in the particular states dealing with the right to counsel. Only in seven states do the courts interpret the constitutional provision of the right to counsel in broad fashion, which may even include the possible requirement that the courts offer counsel in all criminal cases.[3]

With regard to statutory provisions, it may be said that despite the fact that all states have statutes dealing with the right to counsel, there is wide variation in practice in the provision of this right in the states of the Union. Eight states, for example, require the trial court to appoint counsel for indigent defendants in capital cases only. In six others, appointment of counsel must be made only in cases involving life imprisonment or a specified prison term, or is made at the court's discretion. The remaining thirty-four states include those in which the court must appoint counsel at the request of the defendant but does not need to inform him of his right to counsel (nine states), and those in which the duties imposed on the court by statute are not specific (thirteen states). Only in twelve states do the statutes create a clear duty of the courts to advise the indigent criminal defendant of his right to counsel or to appoint counsel in every criminal case involving an indigent unless he objects.[4]

Finally, a handful of states, including Illinois, Michigan, Missouri, New Jersey, and West Virginia, provide by court rules for the assignment of counsel in criminal cases in which the defendant is an indigent. Many of these rules strengthen, broaden, and clarify the statutory provision of counsel. For example, West Virginia's statute on the right to counsel reads, ". . . the accused shall be allowed counsel if he desire it, to assist him in his defense." The court rule broadens the right to counsel in West Virginia by declaring, ". . . if the defendant has no counsel, nor means to employ one, the court shall assign counsel . . ."[5]

The discussion in the preceding several paragraphs has centered largely about the *right* to counsel in criminal cases in American courts, both federal and state. It has been seen that there is a wide variation in the granting of this right in the American states. Moreover, it must be recognized that a right, though freely granted, may be meaningless unless the means exist for its effective realization in practice. This brings us to a consideration of the status of criminal legal aid in the United States, that is to say, publicly-supported legal aid for indigents in criminal cases. This paper will not concern itself with the legal aid, either civil or criminal, furnished by voluntary or privately-supported organizations nor with the legal aid in civil cases furnished by public bodies. From this point forward, then, "legal aid" must be taken to mean the kind of aid which is furnished in criminal cases by some governmental or public instrumentality.

Two systems for the furnishing of legal aid exist in the United States.

[2] Johnson v. Zerbst, 304 U. S. 458, 463 (1938). The defendant in a criminal case may waive his constitutional right to counsel but such a waiver must be competent and intelligent, and must never lightly be presumed by a court. (*See* Glasser v. United States, 315 U. S. 60, 70 (1942).

[3] William M. Beaney: *The Right to Counsel in American Courts.* Ann Arbor, University of Michigan Press 1955, pp. 80-84.

[4] *Ibid.*, pp. 84-85.

[5] *Ibid.*, p. 88.

The older and more traditional method is often called the *asigned counsel system*. In this system, assignments to defend indigent criminal defendants are ordinarily made on an *ad hoc* basis by the trial court. Frequently, the assignments are made from among a list of lawyers who have indicated their willingness to serve in cases involving indigents. Sometimes, the list from which the assignments are made has been prepared by a local bar association and submitted to the court which will make the assignments.

The federal government and almost all of the states in the Union follow the assigned counsel system of legal aid. Approximately half of these states compensate the lawyers assigned to defend the indigent both in capital and in non-capital cases, while all the rest make provision for the compensation of assigned counsel only in capital cases. This compensation is fixed either by statute or by the trial court. Unfortunately, this compensation in many instances falls far below what may be considered as reasonable legal fees.[6]

Assigned counsel in the federal courts serve completely without compensation. Bills have been introduced in every recent Congress calling either for the establishment of a system of fees for the payment of such counsel or, alternately, for the creation of a system of salaried full-time counsel to defend indigents in criminal cases. These bills have had the enthusiastic support of many distinguished persons and organizations, legal and judicial, public and private,[7] but they have thus far failed of enactment.

The assigned counsel system, especially as it is practiced in state courts, has come under heavy criticism, as being subject to a number of serious defects. In the first place, the assignments in cases involving indigents frequently go to young and inexperienced lawyers. Attorneys with well-established practices are often reluctant to accept assignments in cases of criminal indigents since the fees in such cases are often quite small or totally non-existent. As a result, the indigent defendant may be given comparatively incompetent counsel, and his case suffers greatly thereby.[8]

Another negative factor is the decline in criminal practice in many areas of the country and the resultant difficulty in securing experienced lawyers to assign to the defense of indigent persons. From the point of view of the individual criminal defendant, this element may be crucial, for he must rely for his defense upon a lawyer who has had little or no criminal experience. Facing this lawyer is the prosecutor who must, of course, be regarded as a specialist in the practice of criminal law.

Beside the grave defects already mentioned, many others have been pointed out by critics of the assigned counsel system, including the following highly questionable practices: attempts by counsel to extort money from the accused or his family and friends; persuading the defendant to plead guilty in order to save the time and effort of counsel; and wasting the public's time and funds by winning repeated continuances designed to delay a trial of the case until counsel has been able to extract more money from the defendant's family and friends.[9]

For a long time, it has been clear that the assigned counsel system,

[6] Brownell, *op. cit.*, p. 125.

[7] For many of these points of view, see: *Representation of Indigent Defendants in Federal Criminal Cases*, Hearing Before Sub-Committee No. 4 of the Committee on the Judiciary, House of Representatives, February 17, 1954, *passim*.

[8] Even when the young lawyer assigned to handle the defense for an indigent person is quite competent and conscientious, he may not be able to afford the time and the incidental expenses involved in protracted and complicated criminal proceedings.

[9] For a more complete analysis of the inadequacies and defects of the assigned counsel system, see Mayer C. Goldman: *The Public Defender*. New York, G. P. Putnam's Sons, 1917, Chapter II; Charles Mishkin: The Public Defender, *Journal of Criminal Law, Criminology, and Police Science*, 23:493, November, 1931; Philip J. Finnegan: The Work of the Public Defender of Cook County, *Ibid.*, 26:711-712, January, 1936; Brownell, *op. cit.*, pp. 136-144.

get
POWERFUL RECEPTION
in weak signal areas
with these **ALL-NEW** *VHF receivers from*
monitoradio

Now you can expand your communications system with the first really high quality FM receivers ever offered at popular prices. These ultra-sensitive new MONITORADIOS pull in weak signals loud and clear—built for round-the-clock duty to keep all stations constantly alerted . . . fully informed . . . effectively coordinated. Indispensable for police, fire, civil defense and similar emergency units.

the
MINUTE MAN

MR-33, MR-10—Tunable FM receivers for powerful, static-free monitoring of all stations on either the 30-50 or 152-174 mc band. 3 μv sensitivity. 7 tubes plus rectifier.

the
SIGNAL MASTER

MRC-33, MRC-10—For the first time, a low cost crystal-controlled receiver of quality design. Pre-set to any frequency in the 25-54 or 147-174 mc bands. 2.5 μv sensitivity. 8 tubes plus rectifier. Crystal included.

Both units feature powerful 5" speaker, fully tuned RF stage, built-in squelch. Housed in rugged metal cabinets. 110-120V, 60 cycle, AC only. U.L. approved. The Minute Man—$64.50. The Signal Master—$76.50.

Write today for information describing all MONITORADIOS—the world's most complete line of emergency receiving equipment.

monitoradio
DIVISION of I. D. E. A., Inc.
7900 Pendleton Pike,
Indianapolis 26, Indiana

whatever it may have been designed to do in theory, left very much to be desired in practice. In 1919, the system came under especially scathing criticism. In a book published in that year, Reginald Heber Smith, an authority on legal aid, declared, "The truth about the assignment system in criminal cases is that as a whole it has proved a dismal failure, and that at times it has been worse than a failure."[10] A more recent survey of legal aid found that no apparent improvement had been worked in the years between 1919 and 1951. After examining voluminous evidence, the survey found that, "*Except possibly in a few rural areas, the assigned counsel system fails miserably to afford the equal protection under law which it pretends to give and which the Constitution of the United States contemplates.*"[11] The same survey also came to two conclusions, both of which are of extreme importance to all persons at all involved in or interested in the administration of criminal justice in the United States:

First, this country cannot afford to go on permitting thousands of its poorer citizens each year to face criminal prosecution without the minimum protection of representation by competent legal counsel.[12]

Second, the long and wistful attempt to meet so large a need by the volunteer assistance of individual lawyers is a complete and abject failure.[13]

The newer method of furnishing legal aid to criminal indigents is the *public defender system.* A number of states have taken a serious and long-range view of the problem of legal aid and have provided for, or have authorized some or all of their local governments to provide for, public defenders. These are lawyers who become public officials, either by election or by appointment, and are then charged with the responsibility of regularly defending all indigent persons within their jurisdiction charged with criminal acts. Public defenders are paid a regular salary, fixed either by statute or by court rule. These salaries and the expenses incurred in the maintenance of public defender offices are budgeted as regular government expenditures. In some jurisdictions, functioning as a public defender is regarded as a full-time job; elsewhere, the job is considered as less than full-time, and the public defender is permitted to continue to engage in the private practice of law.

Public defenders, or officials closely resembling them, were employed in Europe centuries before they made their appearance in the United States. In this country, the concept of a public defender was discussed as early as the end of the eighteenth century.[14] Many thinking persons saw the evils which lurked in the assigned counsel system and demanded some more effective means for furnishing legal aid in criminal cases. One of the earliest of such persons was Governor John M. Palmer of Illinois, who in 1873 addressed the Senate of his state in the following terms:

> . . . I insist that provision should be made for the election or appointment, in the large cities and populous counties of the State, of suitable persons to visit the places where persons are confined upon criminal charges, confer with and advise poor prisoners, protect them from oppressions and extortions, attend examinations, investigate the charges against them, . . . and manage their defense. A proposition to provide for the appointment of an officer to watch the administration of the laws from the standpoint of those who are accused of crime is novel, but everyone familiar with the criminal laws of the State, is fully aware of the fact that a truthful statement of all the wrongs inflicted upon persons charged with offenses would prove that many crimes have been committed in the name of the law.[15]

However, it was to be some time before the public defender became

[10] Smith, Reginald H.: *Justice and the Poor.* New York, The Carnegie Foundation for the Advancement of Teaching, 1919, p. 103.

[11] Brownell, *op. cit.*, p. 142.

[12] *Supra*, p. 23, n. 1.

[13] Brownell, *op. cit.*, pp. 142-143.

[14] Esther Lucile Brown: *Lawyers and the Promotion of Justice.* New York; Russell Sage Foundation, 1938, p. 255.

[15] *Journal of the Senate . . . of Illinois . . . January 8, 1873*, p. 15, quoted in Sophonisba P. Breckinridge: *Social Work and the Courts.* Chicago, The University of Chicago Press, 1934, pp. 399-400.

Are you looking for information?

A newspaper morgue is an invaluable source of information. Names of parties, critical dates, and witness names and addresses can be discovered. Most newspapers—if your mission is legitimate—will gladly permit a search of their libraries. (Courtesy, The *Los Angeles Times.*) (From Houts, M.: *From Evidence to Proof.*)

Introducing . . .
the "Cruiser Scabbard"
by **Kolpin**

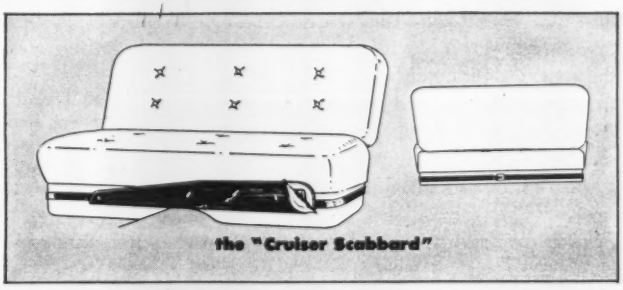
PRICED AT $11.00

PAT. PEND.

Available in right or left side opening

At last, here is an automobile carrier for rifles and short barreled shotguns. It was designed and patented by Capt. H. J. Thomas, Madison, Wisconsin Police force.

This case prevents rusting, pitting and jarring. Prevents guns from getting dirty. It is instantly accessible, yet it is out of the way and hidden from view. Keeps your gun out of reach of any prisoners. This Kolpin gun case renders all other types of gun carrying equipment in vehicles as obsolete. Priced to sell at $11.00, the cost of the "Cruiser Scabbard" is less than the installation and damage cost inflicted on automobiles which use gun racks. This case fastens around the base of the car seat with a heavy duty 2 inch web strap and buckle. The exterior of the case is a heavy fabric with a scuff-proof vinyl coating. It is heavily padded. Lined with heavy duty green lining. This case has FULL LENGTH ZIPPER OPENING. Specify gun length when ordering. Available in black only. See your police supply distributor. If they cannot supply you, write direct to Kolpin Bros., Inc., Berlin, Wisconsin, exclusive manufacturers of this case.



KOLPIN BROS. CO. INC. DEPT. . BERLIN, WISCONSIN.

an established fact in the United States. In 1911, the Constitution of the State of California was amended to authorize counties to frame and to adopt charters for their own government. Acting under this authority, Los Angeles County adopted a charter which was approved by the State Legislature in 1913. Section 14 of this charter lists the various appointive offices of the county, including as one of them the office of Public Defender. In November, 1913, a civil service examination for the position of Public Defender of Los Angeles County was held. Mr. Walton J. Woods placed first on the list of examinees and was appointed to the position by the county's Board of Supervisors, thereby becoming the first public defender in the United States. On January 2, 1914, the office began to function, operating with a staff consisting of the Public Defender, two deputies, and one secretary.[16]

The movement to appoint public defenders for the defense of indigents in criminal cases grew quickly. By 1921, there were public defenders in San Francisco, Columbus (Ohio), Portland (Oregon), Douglas County (Omaha), Shelby County (Memphis), and in all the counties of Connecticut. During the following twenty-five years, public defenders made their appearance in a number of other areas, including Alameda County (Oakland, Calif.), Cook County (Chicago), Tulsa County (Tulsa), Oklahoma County (Oklahoma City), Rhode Island, Marion County (Indianapolis), Hennepin County (Minneapolis), Long Beach (California), and St. Louis (Missouri).[17, 18] Connecticut, with one public defender in each county, and Rhode Island, with one defender who serves the entire state, are thus far the only states in the Union which have provided for public defenders on a state-wide basis.[19]

Since 1945, the movement has ac-

[16] Ellery E. Cuff: *How the Public Defender System Works in Los Angeles County* (mimeographed, undated), p. 2. Mr. Cuff is at present the Public Defender of Los Angeles County. The facts surrounding the opening of this country's first public defender office are given somewhat differently by Edward N. Bliss, Jr., who is presently Chief Investigator under Public Defender Cuff. Mr. Bliss gives the date of the opening of the office as January 9, 1914, and the staff as the Public Defender, three deputies, one secretary, and one assistant secretary. Edward N. Bliss, Jr.: *Defense Investigation*. Springfield, Charles C Thomas, Publisher, 1956, p. 16.

[17] Public defender offices continue in all these areas, with the exception of Portland.

[18] Where a county is mentioned, the public defender has jurisdiction throughout the county, including the large city mentioned in parentheses next to the name of the county. Elsewhere the public defender has jurisdiction only within the city mentioned.

[19] The State of Indiana maintains a public defender for indigents in penal institutions who assert unlawful imprisonment, after the time for an appeal has expired. New Jersey has a law providing for the appointment of public defenders to represent the interests of the public in public utility rate cases. These state public defenders do not, however, have general defense responsibilities, as do defenders in Connecticut and Rhode Island.

celerated. In June, 1956, there were seventy-seven governmental units in the United States with public defenders, broken down as follows: seventy-one counties, four cities, and two states. These governmental units were served by eighty-five public defenders.[20] Proof of the continuing vitality of the public defender movement is the fact that of the total number of public defender offices, a dozen have been created in the past six months.

In terms of numbers, Illinois leads the country, with thirty-one county public defenders. California, the state of the origin of the public defender movement in the United States, ranks second with twenty-one defenders, nineteen county and two city. Indiana is third, with eleven public defenders (ten county and one state), and Connecticut is fourth, with nine county public defenders.[21]

[20] The discrepancy between the number of governmental units and the number of public defenders is accounted for by the fact that Marion County has eight defenders and Tulsa County has two.

[21] Edward N. Bliss, Jr.: *Directory of Public Defenders, 1956.* Springfield, Charles C Thomas, Publisher, 1956; *National Public Defender Report*, Nos. 1, 2, 3 (February-April, 1956); and correspondence. Beside the seventy-two defenders mentioned in the text, they are also found scattered throughout the country, as follows: Florida: 2 (county), Minnesota: 2 (county), Missouri: 1 (city—St. Louis), Nebraska: 1 (county), New York: 1 (county), Ohio: 1 (city—Columbus), Oklahoma: 3 (county), Tennessee: 1 (county), and Rhode Island: 1 (state).

There are also three "voluntary" defenders in the United States, one each in the cities of Boston, Philadelphia, and Springfield (Mass). Voluntary defenders do the same kind of work as public defenders, but they are not supported by public funds.

Proponents of the public defender system argue that it obviates all the difficulties and defects of the assigned counsel system. The defense of indigents in criminal cases becomes regularized and the responsibility for conducting such defense becomes clearly fixed. In these ways, more effective legal aid for indigents in criminal cases can be realized.

For years, the most ardent supporter of the public defender system in the United States was Mayer C. Goldman, a New York lawyer. In his view, the adoption of the public defender system would end all the excesses which he saw in the assigned counsel system and would accomplish other desirable objectives as well, such as: (1) better protection and preservation of the rights of defendants in criminal cases; (2) more able and more honest presentation of such cases; (3) fewer instances of unscrupulous and perjured defense; (4) treatment of rich and poor on an equal basis during criminal trials; (5) more expeditious establishment of the truth in criminal cases; (6) quicker disposition of criminal cases, and (7) raising of the tone of the criminal bench and bar.[22]

[22] Mr. Goldman's chief work on this subject is a small volume, entitled *The Public Defender*. See, *supra*, p. 25, n. 9.

An even more imposing list of the advantages of the public defender system is presented by Professor Harry Best, as follows: "It is in the interests of public justice. There is less occasion for unnecessary delays or wranglings, and proceedings are expedited—in the long run with less expense to the state. A given situation may the more quickly be understood. Cases may be sifted down, the worth of each determined, and the actual facts got at. An investigation may be made, with a report to the court, if advisable. The accused is the more likely to tell the full truth. A plea of guilty when proper may the better be secured. Sentences may be kept within bounds when otherwise likely to be excessive; and probation or other particular treatment may the more readily be obtained when demanded by justice or by considerations of the well-being of the accused. A public defender, acting as a public official, may command greater respect, and is perhaps in better position to secure the best results, than one who serves in a private capacity. The general tone and dignity of the court may be raised. Parasite lawyers and lawyers of a low type who may have preyed upon the position of the accused or upon his relatives no longer have place. There is less opportunity for the 'sporting theory' of justice to prevail. The public defender is less likely to be influenced by undue considerations—he has no personal or professional reasons for securing acquittal of a guilty person. The poor in particular who are able to engage no counsel at all, or only incompetent or inexperienced counsel, come to have a better impression of and confidence in the law. They can feel a greater assurance of justice, and not its denial. There is also possibly an appeal to a more or less dormant sentiment that in justice no one should be required to provide his own defense. * * * Under the system, the interests of the accused are adequately looked after. His case may be given attention from the start. He also has pro-

Good pictures are good evidence!

The driver of this automobile had stated that he was traveling between 15 and 20 miles per hour. The extent of damage to the pole and to the car would disprove this statement. (From Williams, C. A.: *Traffic Accidents.)*

The Preferred Fabric Unequaled for Police Uniform Shirts

SIMPSON'S Soulette REG. U.S. PAT. OFF. POPLIN ALL COMBED SANFORIZED

Simpson's Soulette Poplin is:

1 Fine all combed, long staple cotton, woven for long wear.

2 Vat dyed, to assure fastness to light and washing

3 High thread count for luster and superior appearance

4 Sanforized (shrinkage does not exceed 1%) for permanent fit

Provides the utmost in

LONG WEAR
GOOD LOOKS
COMFORT
ECONOMY

Ask your uniform shirt supplier to show you shirts made of Simpson's Soulette Poplin, or write us direct. It has won the favor of policemen all over the country.

WM. SIMPSON, SONS & CO., INC., 1430 Broadway, New York 18, New York

Philadelphia 12 S. 12th Street | Chicago 300 W. Adams Street | St. Louis 915 Olive Street | Los Angeles 819 Santee Street

Beside Mr. Goldman, the public defender has had a host of supporters. A considerable body of literature on this subject has accumulated during the past four decades; most of these writings are favorable to public defenders.[23]

On the other hand, there has also been spirited opposition to the public defender plan and to its spread in the United States. Many of those who are opposed to the institution of public defenders disagree completely with all the contentions made by Mr. Goldman and others who favor such a system for furnishing legal aid. However, an analysis of the arguments against public defenders reveals that many of them seem either to be based on a faulty understanding of the theory and practice of the public defender system or are a thinly-disguised attack on legal aid in general rather than an attack on the method of furnishing such aid.[24]

One of the outstanding aspects of the public defender system in the United States has been its complete acceptance where tried. To date, only one area which has provided for the establishment of a public defender's office has felt itself compelled to abandon it.[25] In the other areas served by public defenders, there has been almost unanimous approval of the system in operation. Police officials, judges, students of criminology and government have evinced more or less complete satisfaction with the public defender system in practice and have urged its wider adoption. For example, on March 3, 1954, the United States Court of Appeals (Second Circuit), while upholding the conviction of a criminal appellant, noted that a skillful defense is required to assure justice and remarked further, with apparent disapproval, that the " . . . federal establishment has lagged behind most of the states in the provision at public expense of public defenders for those charged with crime.[26]

[23] For an early bibliography of literature on public defenders, see, A. Mabel Barrow: Public Defender: A Bibliography. *Journal of Criminal Law and Criminology, 14*:556-572, February 1924. See also: Reginald H. Smith and John S. Bradway: *Growth of Legal Aid Work in the United States*. Washington, United States Government Printing Office, 1936, pp. 212-223. It was in a preface to the latter work that William Howard Taft, ex-President and Chief Justice of the United States, wrote, "I think we shall have to come and ought to come to the creation in every criminal court of the office of public defender, and that he should be paid out of the treasury of the county or the state."

tection from a possibly overzealous prosecuting official anxious to secure a conviction." Harry Best: *Crime and Criminal Law in the United States*. New York, The Macmillan Company, 1930, pp. 543-544, n.

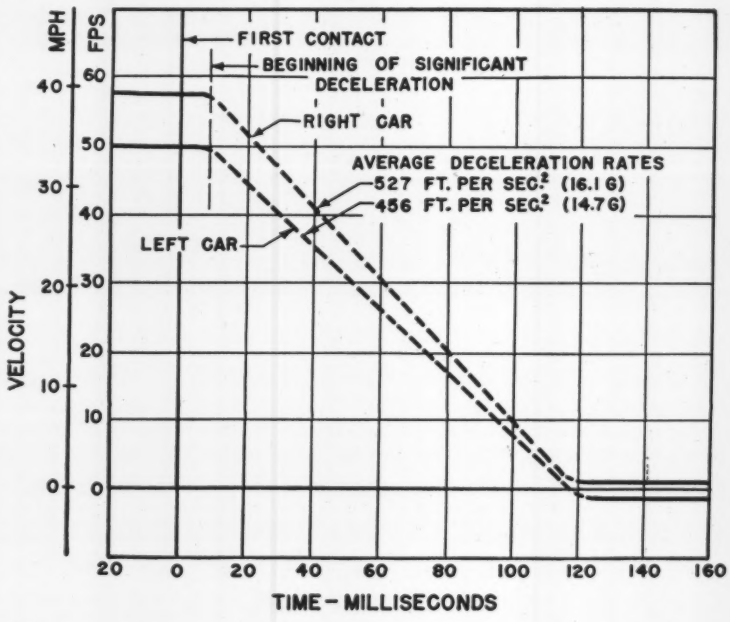
[24] For a detailed analysis of the various arguments raised against public defenders and an evaluation of these arguments, see, David Mars: Public Defenders. *Journal of Criminal Law, Criminology, and Police Science, 46*:203-210, July-August, 1955.

[25] See, *supra*, p. 27, n. 17.

[26] United States v. Puff, 211 F.(2d) 171, 187.

Are eye witness accounts reliable?

In controlled automobile crashes staged at UCLA, the interval of time between the first impact of two vehicles until they came to rest completely so that no energy was being expended was 110 thousandths of a second in one crash and 130 thousandths of a second in another. It take a minimum of 1/5 of a second for a person to receive stimuli and turn his head ninety degrees in any direction. If the witness was not looking directly at the crash, he did not see it. He only saw the *results* of the impact; and his report of the event is based on filling-in, a reconstruction of what he *thinks* happened. (Courtesy, *Traffic Engineering*, UCLA.) (From Houts, Marshall: *From Evidence to Proof.*)



The judicial seal of approval for public defenders came in what is probably its clearest form in 1949, when the Supreme Court of California said, "This court can take judicial notice, too, that it would be difficult to find in California any lawyers more experienced or better qualified in defending criminal cases than the Public Defender of Los Angeles County and his staff."[27]

In November, 1914, an article entitled "The Knell of the Public Defender" appeared in a leading legal journal. The author of the article predicted an early demise of the public defender system, labelling it as a proposal of "sentimental reformers" and "amiable but misguided persons."[28] Despite the dire prediction of this early prophet of gloom, the public defender has continued a steady growth in the United States. Recent months have seen a number of governmental units adopt public defenders, and at the time of this writing, state action looking toward the authorization of some sort of public defender work is pending in at least two states. [29]

As more and more cities, counties, and states authorize public defender offices, the advantages of this system as compared with the assigned counsel system should become a matter of common knowledge. This in turn should lead to ever wider adoptions of public defender offices. The time may not be too far distant when in a majority of jurisdictions in this country, the constitutional and legal right to counsel will be effectively realized in practice and our indigent criminal defendants will not be made to feel completely without hope.

[27] People v. Adamson, 34 Cal.(2d) 320, 333, 210 P.(2d) 13, 19. The office of Public Defender of Los Angeles County is the largest such office in the United States, consisting (1956) of the Public Defender, a Chief Deputy, and twenty-one deputies, all of whom are lawyers, and a Chief Investigator and four investigators. In 1954-55, the office received over five thousand criminal cases, accepted over five thousand civil cases, and expended $270,-380.06. *Directory of Public Defenders 1956*, p. 1; *Annual Report of Public Defender of Los Angeles County*, July 1, 1954 to June 30, 1955, pp. 14, 17, 21.

[28] *Bench and Bar*, 9(n.s.):287.

[29] New York and Texas.

TRAFFIC ACCIDENT NOTES

Saturday is the most dangerous day of the week to drive.

Four to 8 p.m. are the most dangerous hours of the day to drive.

Excessive speed was the principal cause of traffic accidents in 1955.

More than 78% of vehicles involved in fatal accidents in 1955 were traveling straight ahead.

Approximately 15,730 persons were killed in weekend traffic accidents last year.

More than 766,000 persons were injured in weekend traffic accidents last year.

The pedestrian record reflected the 5th consecutive year of improvement for motor vehicle accidents in 1955.

Some Major Developments Related to Chemical Tests

By Kurt M. Dubowski

EDITOR'S NOTE: *The following Technical schedules were prepared by Dr. Kurt M. Dubowski, Director of Chemistry, Iowa Methodist Hospital, Des Moines, Iowa, for the Division of Criminal Investigation, Iowa Department of Public Safety, and presented before the 41st Annual Conference of the International Association for Identification, Omaha, Nebraska, on August 6, 1956. They are published for the convenience of technical personnel concerned with alcohol determinations, examinations for the presence of blood and the detection of seminal matter. Dr. Dubowski was formerly Chemist for the Iowa Department of Public Safety and is a member of the Committee on Tests for Intoxication of the National Safety Council.*

RECOMMENDED SPECIMENS FOR TOXICOLOGIC ANALYSIS

SPECIMEN MATERIAL	MINIMAL QUANTITY	INDICATED FOR	REMARKS
Blood	Living: 20 ml. Deceased: 100-500 ml. (For ethyl alcohol only: 5 ml.)	1. All gaseous poisons 2. All volatile poisons 3. Most drugs 4. Sedatives, hypnotics 5. Fluoride 6. Lead 7. Hemoglobin derivatives 8. Alcohols	(Particularly indicated for alcohol, barbiturates, carbon monoxide) Fill containers completely 6. Lead-free plastic container 7. Heparinized whole blood
Urine	All available (24-Hr. specimen for lead)	1. Nearly all drugs and poisons 2. Lead 3. Heavy metals 4. Alcohols 5. Fluoride	2. Lead-free plastic container 4. Timed double specimen for ethyl alcohol
Gastric contents	All available	All ingested substances within 0-6 hours after ingestion; corrosives	Useful only to prove ingestion or to identify poison; cannot establish toxic effect cause
Brain	1000 grams (For ethyl alcohol only: 5 g.)	1. Volatile poisons 2. Alkaloids 3. Sedatives, hypnotics 4. Narcotics 5. Alcohols	
Liver	1000 grams	1. Alkaloids 2. Metals 3. Barbiturates 4. Fluoride 5. Oxalate	
Kidney	1 kidney	1. Metals 2. Sulfonamides	Particularly useful in mercury poisoning
Hair & nails	All available	Arsenic	Useful only in chronic arsenic poisoning
Lung	500 grams	All inhaled gaseous poisons except carbon monoxide	For proof of entry site
Muscle	500 grams	1. Heavy metals 2. Most other poisons	Useful when internal organs are badly decomposed.
Heart blood	5-10 ml. from each atrium	Electrolytes	Useful in questionable drownings

Yes Sir, The "Deal" Is Still On!

Free! **A GENUINE LEATHER HOLSTER WILL BE INCLUDED FREE WITH EVERY PAIR OF OUR NEW 1957 MODEL NICKEL PLATED SPEED MASTER HAND CUFFS ORDERED AT THIS TIME. $10.00 FOR BOTH** *Free!*

This is the special DEAL which has proven so tremendously successful that we have been asked to repeat it so all can take advantage of this great SAVING. For more than 25 years we have been honestly and faithfully serving you with the FINEST products at the LOWEST prices.

P L U S

REMEMBER, SPEED MASTER HAND CUFFS are Nickel plated, Lighter weight, "Flip-on" Action, case hardened Single and DOUBLE locks, rust proofed, made by us in strict compliance with ARMY-NAVY and all Government Specifications. There are none finer. Order NOW from

$10.00 per pair
complete with holster
f.o.b. Chicago Plant

AMERICAN MUNITIONS COMPANY
MANUFACTURERS
1701 W. Hubbard St., Dept. POL, Chicago 22, Illinois

STAGES OF ACUTE ALCOHOLIC INFLUENCE/INTOXICATION

Ethyl Alcohol Level (*Per Cent by Weight*)		Stage of Alcoholic Influence	Clinical Signs/Symptoms
Blood	Urine		
0.01-0.05	0.01-0.07	Sobriety	No apparent influence Behavior nearly normal by ordinary observation Slight changes detectable by special tests
0.03-0.12	0.04-0.16	Euphoria	Mild euphoria, sociability, talkativeness Increased self-confidence; decreased inhibitions Diminution of attention, judgment, and control Loss of efficiency in finer performance tests
0.09-0.25	0.12-0.34	Excitement	Emotonal instability; decreased inhibitions Loss of critical judgment Impairment of memory and comprehension Decreased sensitory response; increased reaction time Some muscular incoordination
0.18-0.30	0.24-0.41	Confusion	Disorientation, mental confusion; dizziness Exaggerated emotional states (fear, anger, grief, etc.) Disturbance of sensation (diplopia, etc.) and of perception of color, form, motion, dimensions Decreased pain sense Impaired balance; muscular incoordination; staggering gait, slurred speech
0.27-0.40	0.37-0.54	Stupor	Apathy; general inertia, approaching paralysis Markedly decreased response to stimuli Marked muscular incoordination; inability to stand or walk Vomiting; incontinence of urine and feces Impaired consciousness; sleep or stupor
0.35-0.50	0.47-0.67	Coma	Complete unconsciousness; coma; anesthesia Depressed or abolished reflexes Subnormal temperature Incontinence of urine and feces Embarrassment of circulation and respiration Possible death
0.45+	0.60+	Death	Death from respiratory paralysis

Traffic Accidents, First Aid, and the Police Officer

By Carl B. Young
Drawings by Richard Fry

EDITOR'S NOTE: *Mr. Young holds a B.S. Degree in Health Education from the University of Houston; a Master of Public Health Degree from the University of North Carolina, in addition to research at the University of Texas Medical Branch, Galveston, Texas, in resuscitation and emergency procedures. He was a medic in the 87th Infantry Division Co. A 312, Medical Battalion; and served in the E. T. O. He has been with the American Red Cross in First Aid and Water Safety Services since 1951. Mr. Young was an Assistant Director of the Harris County Emergency Corps, Houston, Texas, and now holds the position as Director, First Aid and Water Safety Services, with the American Red Cross in Corpus Christi, Texas.*

TODAY, every law enforcement officer is faced with a major problem: that of reducing our traffic accidents. With the tremendous increase of vehicles on our highways, the accident rate is moving upward. In most communities driver training and other safety educational programs are underway. It is unfortunate that many who should be reached by these programs are not. How to reach Mr. John Q. Public so that he becomes safety conscious and does not commit the unsafe act while driving presents a challenge to all of us. Until, however, our engineering, educational programs, and aroused civic interest catches up, the police officer must handle the bloody results and fatal facts.

Last year, our country witnessed a mass slaughter of its citizens from traffic mishaps. Some 38,300 people were killed and another 1,350,000 seriously injured.

Address: Carl B. Young, Director, First Aid and Water Safety, The American Red Cross, P. O. Box 1758, Corpus Christi, Texas.

Traffic collisions, because of the terrific violence where man is hurled against steel or onto the concrete roadway, cause serious injuries familiar to all. Investigating or working these traffic accidents, constitutes one of the major responsibilities in every department.

Good, "on the spot," first aid often prevents permanent disability and reduces the period of rehabilitation and convalescence. As the police officer often arrives at the scene before the ambulance crew, he has, in many cases, the life of the injured in his hands. A review of a few life saving measures may well help salvage some of these unfortunate accident victims.

A hurried, yet thorough, examination of the injured is always the first measure to be accomplished. This is vital, as only then can the victim be safely handled. Serious bleeding must be controlled immediately. Check next for breathing. Following head injury, make certain that the air pathways are not obstructed by blood, vomitus or dental plates. In the conscious victim the nature of injury is generally easy to determine. Always check out the possibility of a spinal injury by asking the victim to move his fingers. Then pinch his

FIGURE 1. Your community can lower the accident mortality rate by good intelligent, on-the-spot, first aid for the injured. By such a service is implied the following: Centralized control and responsibility; prompt dispatching; well-trained ambulance crews; first aid equipped and adequate type ambulances; proper first aid rendered before movement of the patient; careful handling and a slow "common sense" ride to the nearest hospital.

FIGURE 2. The police officer reminds the ambulance attendant to ride in the rear of the ambulance with the accident victim.

arms to find out if he can feel them. If the victim complains of pain in the neck, cannot feel or cannot move the extremity and fingers we would suspect a (neck) spinal injury and handle as such. The same procedure is followed with the legs. Ask for movement, then pinch above the knee for feeling. Inability to move, feel, pain in the back, or a combination of any two would indicate the possibility of lower (back) spinal injury.

Fracture of the spinal column is bad enough, but damage to the spinal cord is permanent. For this reason every precaution must be taken to prevent injury to the spinal cord. It is generally impossible to determine the presence of spinal injury in the unconscious victim. Therefore, following violence, care for this case as if he had a spinal injury. Play it safe, use a broken back board. Every ambulance should carry such equipment. Only on a rigid support can spinal fractures be safely handled.

When checking for fractures grasp the limb firmly and gently move it. And, by watching the face at the same time, you can more easily tell when a fracture is present. All fractures should be properly immobilized before transportation. There is no excuse for not splinting a fracture case.

Often, immediate rescue and removal of the victim is imperative. Especially is this so when there is danger of fire or explosion. The fire department should be called promptly when such danger is present.

Serious bleeding should be controlled by direct pressure and a pres-

FIGURE 3. To place such cases on the back may cause strangulation. First aid is using common sense.

FIGURE 4. Serious head injury cases should be transported so that drainage of blood will permit open breathing pathways.

sure dressing applied. Use of digital pressure points until a pressure dressing could be applied, has saved many lives. A tourniquet is a dangerous instrument, is seldom necessary, and should be used only as a last resort.

At the earliest time, a blanket, coat, or cover should be used to keep the victim warm. Work this carefully under as well as covering over the person. With the possible exception of some chest and head injuries, every injured person should be placed flat upon the ground or stretcher.

Outstanding among traffic injuries, and one of the leading causes of death are injuries to the head. When the brain has been sufficiently lacerated, with resulting massive hemorrhage, death occurs shortly following the accident. Possibly, many cases, DOA at the hospital, could be prevented. Some, we know could be prevented.

Following basal fracture of the skull, we usually find bleeding from the ears and nose. A careful check of respiration is mandatory in these cases, as blood runs backward, down into the throat.

The damaged brain loses control of the gag reflex, ability to cough, and to swallow. Thus, even if partially conscious, the victim may be totally unable to maintain a clear air pathway. If unconscious, he is in immediate danger of aspirating this blood into the lungs, with fatal consequence.

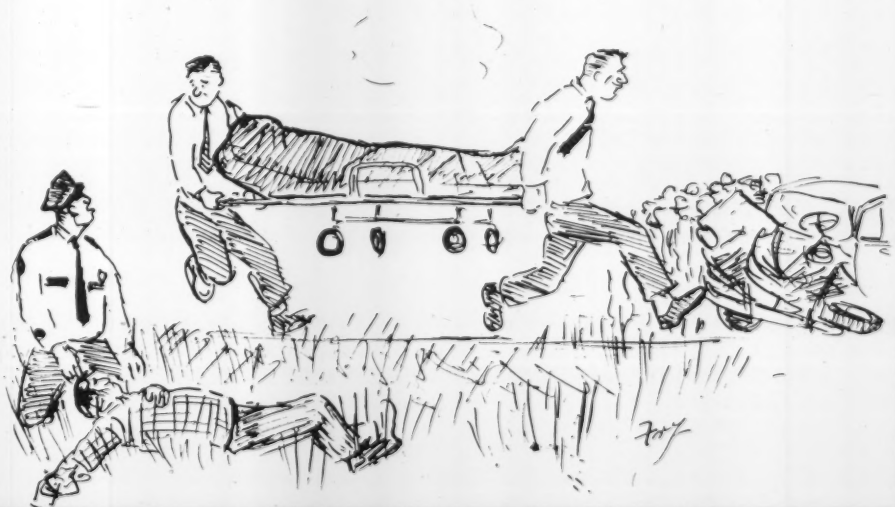


FIGURE 5. The injured must always receive first consideration. Unfortunately, this is not always the case.

FIGURE 6. Every law enforcement officer should be first aid trained. He should assume leadership in emergencies, doing everything in his power to relieve pain, suffering, and making certain the injured are carefully handled. To do less is a betrayal of public trust.

When breathing is noisy, difficult or when blood can be seen flowing into the back of the throat, place this victim onto his abdomen or side, turning his head so that the blood can drain out. This simple measure has saved many head injury cases by giving the physician a living patient. Turning the patient in such a manner must be done at the expense of other injuries—as it is a life or death measure. Once you have insured the freedom of breathing by favoring drainage, other injuries may be given due consideration.

Often in traffic accidents a blow of sufficient violence to fracture the skull will also cause fracture of the neck. Therefore, handle all head injuries carefully. In compound fracture of the jaw and extensive facial injury cases, the individual if conscious, may feel more secure if placed in a sitting position. Elevate the ambulance stretcher and place them on their side. Gunshot injury or crushing injury to the face may render an individual unconscious. In these cases, place the victim on the abdomen with the head to the side

FIGURE 7. All ambulances should carry fracture boards.

FIGURE 8. Hold back the crowd, assist the ambulance crew. The injured should not be moved until proper first aid measures have been carried out.

to allow drainage of blood out of the mouth. This will do much to prevent or care for the serious condition of shock, which itself takes so many lives following injury.

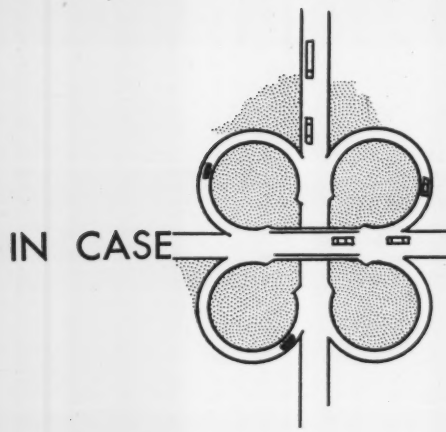
The officer should assume leadership in the removal of the victim from the car, ditch, or road. He should use an ample number of bystanders so as to prevent added injury.

Above all, the officer must give every assistance to the ambulance crew. In those communities where ambulance service is below standard, where the attendants are not properly trained or equipped, the officer's responsibility to render first aid increases. Conservation of life is his primary goal.

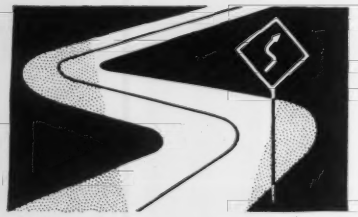
The ambulance helper should ride in the rear of the vehicle with the injured. *If proper first aid has been rendered there is no medical reason for excessive speed enroute to the hospital. Use of the siren is seldom necessary. The lives of patients, ambulance drivers and the general public would be placed in less jeopardy if ambulances adhered to normal traffic regulations like any other vehicle.*

To conclude, we would urge every law enforcement officer to be proficient in first aid measures; to assume leadership at the accident scene and through these efforts contribute to the saving of human life following traffic accidents.

FIGURE 9. Care for shock; keep the patient warm and dry.



IN CASE YOU'RE TRAFFIC MINDED



How Good Vision Tests Should Be Conducted

EDITOR'S NOTE: *An increasing number of states are re-examining their drivers' licensing procedure in terms of the minimum vision qualifications for safe driving. Following is the second in a series of three articles* presented within this frame of reference through the courtesy of the American Optometric Association, Inc.*

HOW WE SEE

RECEPTIVE mechanism sensitive to light enables us to see. In darkness we do not see. Even the person with perfect eyesight can see nothing in total darkness.

Rays of light enter the eye and strike the retina inside the eye, setting up impulses that are transmitted to the brain. These nerve impulses are in turn interpreted as people or objects, as the person evaluates them from his previous knowledge and experience.

A very small part of the retina interprets the finer details of form and shape. This highly sensitive area is called the macula and is situated directly in line with the pupil.

The retinal area surrounding the macula interprets gross form and motion. It is spoken of as the field of vision. The lateral field of vision ordinarily is about 180° with both eyes. Less than 70° in either eye constitutes a serious restriction.

FACTORS IN SEEING

Light

Light, therefore, is absolutely necessary for vision. How much light is needed varies with the object a person wishes to see and with his visual efficiency. More light is needed for reading or close work, for instance, than for walking about a room.

On the other hand, too much light directed into the eyes, may be a cause of accidents. Driving into the setting sun or bright headlights can be and often is a factor in collisions with cars and pedestrians. If the light that shines in the driver's eyes is brighter than the surrounding illumination, it dims vision in proportion to its contrast.

Under such conditions as haze, smoke, rain, and snow, light is broken up by minute particles in the atmosphere, and vision is thus reduced. Research shows that this reduction in vision is proportional to the acuity of vision which the driver may possess.

Fatigue

Body fatigue in general lowers the response of all sensory and motor functions, including vision. Certain visual deficiencies tend to make a person drowsy—a dangerous thing to happen to an automobile driver.

Thus, fatigue can be the cause of, and in turn the result of, a lowered visual efficiency, and so contribute its share to highway accidents. It is established practice, enforced by the Interstate Commerce Commission, for drivers of transcontinental trucks to rest and sleep at stated intervals. This is a wise precaution that pays off in eliminating accidents due to fatigue. Many private car drivers push themselves beyond their fatigue point in an effort to clock off a high mileage rate each day—an invitation to accidents.

Address: Mr. J. Harold Bailey, Administrative Director, The American Optometric Association, 4030 Chouteau Avenue, St. Louis 10, Missouri.

* The first appeared in the September-October 1956 issue.

The examiner in the license division does not have the training or equipment to make tests to uncover certain visual deficiencies that can cause fatigue. But in accident cases where the cause is reported "fell asleep at the wheel," the driver should be given a more searching examination, either by the department or by referral to a vision specialist, before permitting him to drive a car again.

Age

As one grows older his responses slow down and render him less fit to drive a car. Just when physical infirmities might overtake a person cannot be predicted. People differ too much to make any rules along this line. Research conducted by the Motorists Vision Committee with a group of 2,500 drivers in fifteen counties of Iowa showed, however, that visual efficiency drops appreciably after fifty-five years of age. Distance judgment seemed to increase somewhat up to the age of thirty-five, and then decrease. This is a natural trend, as the function of distance judgment is a learned skill and dependent upon previous experience.

Intoxicants

Only a limited amount of data is available on the effects of alcohol and other intoxicants. Alcohol lowers visual efficiency and may cause one to see double and lose his muscular co-ordination.

A study was made by the Motorists Vision Committee on the American Optometric Association on mild intoxication caused by amounts of alcohol varying from .074 of 1% to .124 of 1%. (In the opinion of most traffic bureaus, a person may be considered to be under the influence of alcohol who has from 0.05 to .15 of 1% in the blood stream, while a person who has .15 of 1% is definitely intoxicated.) The results of this study showed that the sensory function studied were reduced about 13.8%, judgment factors about 23.1%, and skills about 24.6%. Acuity may be decreased 5 or 10% when a person is mildly intoxicated. Distance judgment and glare resistance and recovery may be decreased as much as 20 to 30% when enough alcohol has been consumed to show alcohol in the blood stream to the extent given above.

A crucial factor seems to be the psychological problem of attention or proper use of the sense organs. This seems to decrease as much as 30% with mild drinking. Naturally, it is an individual matter, and probably is affected by numerous other factors, such as personal drinking habits, and so on. It does indicate that a driver who drinks periodically should be subject to more strict adherence to the legal limits on his visual tests.

Figures released by the National Research Council in 1947, for the previous year, show that an average of one out of every five drivers involved in a fatal accident had been drinking. It was also shown that one out of every four pedestrians killed in motor vehicle accidents had been drinking.

A driver takes the Howard-Dohlman Peg test for depth perception. By pulling the strings, the left peg in the aperture can be moved nearer or further away until the driver sees it in line with the stationary peg. *(Photo, courtesy Porto-Clinic.)*

Smoke, Fog, and Haze

Although there may be less smoke than fog or haze to handicap an operator of a motor vehicle, it is a factor in shortening a driver's effective horizon. In certain industrial cities smoke is, in itself, a contributing cause to accidents; but where it is combined with fog and haze, it becomes a real hazard. There even has been a word coined—smog—to cover the wedding of the two.

How these factors affect vision is comparable to the loss induced by driving at dusk. Persons who already have a loss in visual acuity are more handicapped by smoke and fog than the driver with 20/20, or so-called normal, vision.

VISION TESTS

As visual acuity relates to the automobile driver, it simply amounts to being able to read signs and to see people or objects accurately at the greatest possible distance. If an object is not clear in the distance, we must draw closer until it is clear so we can "see" it. The reason it cannot be seen in the distance is because the eyes cannot define it. Hence, a person with subnormal vision must get closer to everything to "see" than one with normal vision—how much closer depends on the amount of visual deficiency.

A license examiner need only be concerned with the broader aspects of visual testing, leaving the finer differences to the vision specialist. Acuity, field of vision, depth perception, and night vision tests are the chief types of visual checks needed to be given by the license

Field of vision—ability to see to the sides while looking straight ahead—is being tested, one eye at a time, in a vision specialist's office.

examiner. Those failing on these tests can be referred to a vision specialist.

History of Vision Tests—Snellen

Probably the simplest method of measuring visual acuity is by the method which was contrived by Snellen. He devised a chart, consisting of letters and symbols, that furnishes a means of measuring acuity. This chart at present is commonly accepted as a useful device for rating keenness of vision.

Meaning of 20/20

In determining visual acuity a chart is placed twenty feet from the person to be examined, and on the chart are printed letters of correct size and shape, as outlined by Snellen, from which the subject reads. Determine the smallest line of type that the subject can read with each eye separately and with both together. The letters on the 20/20 line are approximately 3/8 of an inch high. If they can be read at twenty feet, the person is said to have 20/20 vision. If the subject can only read at twenty feet the line of letters that the "normal" eye sees at forty feet, he is said to have 20/40 vision.

This same interpretation holds for the other acuity ratings, such as 20/15, 20/70, and so forth.

Distance vision is the chief requisite of the automobile driver, so the driver's license examiner need not be concerned with checking the near vision of applicants for a motor vehicle license.

Testing Driver's Acuity

Some licensing bureaus rate their findings by projector instruments. The following table gives the equivalent for Snellen and Clason notations and their readings in letters "A" to "E."

TABLE I
RATINGS FOR ACUITY

	Snellen	*Clason (Per Cent)*
A	20/21 to 20/20	95 – 100
B	20/25 to 20/22	85 – 94
C+	20/26 to 20/24	75 – 84
C	20/31 to 20/27	65 – 74
C–	20/36 to 20/30	55 – 64
D	20/50 to 20/37	40 – 54
E	Below 20/50	Below 40

Vision should be measured under controlled lighting, or the results will be far from accurate. The eye does not respond to the same extent under low illumination as it does under adequate light. For this reason the vision test should be given to applicants where there is absolute control not only over the light that falls on the chart, but also over the general illumination of the room.

For most accurate results in testing drivers' visual acuity, the general level of room illumination should not

Distance acuity is a major visual requirement for safe driving. Here it is being tested in a modern optometric examining room.

be less than four foot-candles. The test chart itself should have between ten and twenty foot-candles of incidental light upon it. Reflectors should be used so that none of the supplementary light upon the chart should shine directly into the eyes of the person being tested. The following table of illumination was compiled under these conditions. Metal reflectors of good quality were used, and the lamps were ordinary household white, inside frosted, American-made electric lights, 120 volt. All light globes were new. Worn globes or dirty globes or old reflectors would necessitate a decrease in distance of about three inches for equivalent illumination.

TABLE II
ILLUMINATION

Number of Lamps	*Watts*	*Distance from Chart (When 2 Lights Were Used, Both Were Equally Distant from Chart)*	*Resultant Foot-candles of Light on Chart**
One	40W	18"	15
Two	40W	23"	15
One	60W	27"	15
Two	60W	34"	15
One	75W	29"	15
Two	75W	42"	15
One	100W	41"	15
Two	100W	46"	15

* Foot-candle readings were taken directly upon the chart with a General Electric Foot-candle Exposure Meter Model 8DW58Y1, which may be obtained from any good photographic supply store. Four foot-candles of light is about average for a room illuminated by ordinary daylight or well illuminated by artificial light.

If the Snellen system of measuring vision is desired, either a wall-type chart or projector-type instrument may be used. Both use the Snellen-type letters.

The Snellen wall type has black letters printed on a white background, and care must be taken to see that the white chart is clean. Any discoloration from soil will affect the accuracy of the test. Charts with a colored background should never be used.

Here a driver's eye and foot coordination is being tested. As a red light appears he moves foot from accelerator to brake pedal as in actual driving, and reaction time is measured. *(Photo, courtesy Porto-Clinic.)*

The wall chart has light shining on it from the general illumination of the room and from any special source directed upon it. The projector type has a light inside the instrument by which letters are projected upon the screen. The letters are on a slide within the projector and are thrown on the screen by a light. For either type chart the general illumination in the room must be controlled.

The exposed chart on the wall has certain disadvantages—namely, that it can be memorized and that it is exposed to dust and dirt. Also, unless it is carefully placed and has a hood over and around it with special lighting, the illumination will not always be uniform. The standard of from ten to twenty foot-candles of light on the chart must be maintained, for less than the prescribed light will reduce the applicant's rating.

A projector-type chart has letters that can be changed at will, in any size or sequence, which gives less chance for memorization. It has the advantage of a constant light on the screen when the tests are given under conditions of controlled lighting in the room.

Procedure: The applicant should stand or sit twenty feet from the chart, with the eye at a level with the center of the chart. Where space does not permit placing the chart 20 feet from the applicant, it is recommended that

Specializing in
OFFICIAL CREDENTIALS
FOR
PUBLIC OFFICIALS,
POLICE, FIRE and SHERIFF
DEPARTMENTS
(Not available through dealers)
John S. Lehmann
68 BURCH AVENUE
BUFFALO 10, NEW YORK

POLICE

- is YOUR journal if you are engaged in or interested in any phase of law enforcement.
- is the FIRST truly professional publication designed for career law enforcement personnel.
- You will READ and REREAD each issue because they will help you in your chosen profession.

PLEASE ENTER MY SUBSCRIPTION:

☐ One year (U.S., Possessions, Pan-American Union, Spain) $3.00.
☐ One year (Canada) $3.25.
☐ One year (All other countries) $3.50.
☐ I would like my subscription to start with first issue.

Name _____

Address _____

City _____ State _____

Mail to

CHARLES C THOMAS • PUBLISHER
301-327 East Lawrence Avenue
Springfield, Illinois • U.S.A.

the examiner consult with the local or state chairman of the Motorists' Vision Committee of the state Optometric Association for recommendations on testing for their particular conditions. Since minimums vary in states, it is impossible to set forth here the necessary data to meet each situation.

Each eye should be tested separately. If glasses are worn, it is suggested that the test be given first with glasses and then without.

The examiner should hold a card or occlusion spoon in front of one eye, while the other eye is being tested. This is a more satisfactory method of closing off the vision of one eye than putting a hand before it. Care should be taken that the applicant does not squint, as the vision may be sharpened by this means. With a card in front of the right, then the left, eye, the appicant is asked to read the letters on the chart. Directions something like the following may be used: "Read aloud the smallest letters that you see on the chart."

Pass all applicants who meet the visual standards required by the state. Allow only one error in each line for credit on that line. There are approximately eight letters on the 20/20 line, and fewer on each line, as the size of the letters increases. The rating is made on each eye separately. If there is no state recommendation for vision, it is recommended that applicants be required to have a minimum of 20/40 in each eye separately, for general driving privileges without special checking.

Refer all applicants who fall below the state's visual requirements to an optometrist or ophthalmologist for further examination. Send a card along with the applicant for the doctor to fill out with his recommendations as to the visual fitness of the person to drive an automobile.

Restriction rather than rejection of the driver is a much more effective and desirable way of handling many cases. It should be the purpose of the licensing division to keep more drivers on the highway driving safely.

Color Vision

Experiments are being made with color filters to help those who cannot distinguish between red and green.

Glare Resistance and Recovery

Glare is the undesirable effect of a superfluous amount of light directed in the eyes, over and above the amount needed for clear and distinct vision. People differ in their tolerance and reaction to glare. Some drivers are so blinded by the glare of headlights that they are unable to see the road in front of them. The setting sun is another source of intolerable glare.

An analysis of a thousand commercial drivers' records shows the following distribution of scale readings on the glarometer test. This is a test for glare resistance.

TABLE III
NORMS ON EFFECT OF GLARE
(Based on 1,014 Commercial Drivers)

Percentage of Drivers in Classication	*Rating*	*Scale Readings on Glarometer*	*Foot-candles of Light at the Eye (3 Foot-candles Added for Extraneous light)*
0	A	75-93	18.1-37.0
15	B	69-74	15.6-18.0
20	C+	62-68	11.1-15.5
30	C	56-61	9.1-11.0
20	C-	48-55	7.0- 9.0
10	D	36-47	4.4- 6.9
5	E	14-35	3.0- 4.3

While not perfect, the glarometer is successful in picking out the persons who are abnormally affected by headlights of cars. Drivers who fall below thirty, as indicated by scale readings on the glarometer—that is, those who are blinded by three foot-candles of light at a distance of twenty feet—are considered to have poor resistance to glare.

Low Illumination

Low illumination in the form of fog, smoke, and sleet, as well as the darkness of twilight and night, influence driving ability. Laboratory findings show that persons with reduced visual efficiency are much more handicapped under conditions of lowered visibility than are persons with efficient vision. It was also revealed that anyone who has a tendency toward color blindness has

even more difficulty in distinguishing color in low illumination, or at night, than during the day.

Night vision tests are not sufficiently standardized to be placed in general use at licensing bureaus.

Depth Perception

Tests for depth perception should be incorporated into a first-class driver's visual examination, because drivers are continually being called upon to exercise their distance and space perception in estimating such distances as that between their own cars and the edge of the road, people, or other cars on the highway. Distance judgment is partially dependent on stereopsis, or depth perception, and partly upon other factors, such as haze, shadows, and general illumination. Collisions in darkness are sometimes caused because this ability often decreases appreciably at night and drivers cannot estimate the position of their own cars in relation to other cars or objects.

Improper passing accounts for a considerable number of our highway accidents. Space perception is especially needed in passing other cars.

A well-known test for space perception is known as the Army Peg Test,* or the Howard-Dohlman Rod Test. A variation of this test has the substitution of miniature automobiles for the pegs. These are set at four separate distances, with the front axles even with the standard pegs. Light is controlled, and conditions are carefully standardized. Each instrument must be calibrated after it is built, to be sure of accuracy, since illumination, type of cars used, and other factors, affect readings.

Anything that will impress the driver with his limitations in respect to his ability to judge space between his car and the highway, or the speed of approaching vehicles, will contribute to safety.

Conditions: The test objects must be evenly illuminated, and the angular position of the eyes must remain constant with relation to the miniature roadway. A calibration device should be built into the machine so that it can be properly aligned at regular intervals.

Procedure: The applicant is seated and shown how to move the test cars. He is told where they are to be set and then the following verbatim instructions are given:

"You are to move the small cars by holding the strings lightly. Set the front axles at the posts, or even with the posts; the two center cars at the center post, the right car at the right post, and the left car at the left post. Do it as quickly as you can. Begin."

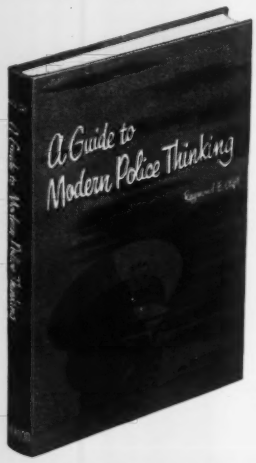
Settings are made on equipment with a high-grade reflecting mirror at three positions: 10 feet, 15 feet, and 20 feet. A second reading at 15 feet may be made if sixteen trials are desired. The applicant may look at the cars and pegs between trials only. For practical purposes, four trials at twenty feet are usually sufficient.

Notation of Results: The score is the total error in centimeters of all cars from the proper position as measured with a small T-square and added.

* Plans for this test may be obtained from the American Automobile Association, 17th and Pennsylvania Avenue, N.W., Washington, D. C.

SAVE...TIME, MONEY, FACTS!
Ampro® HI-FI
TWO SPEED TAPE RECORDER
There's practically no limit to the number of ways an Ampro Tape Recorder will serve your Department. Recordings of key speakers can be preserved for police training purposes; lectures can be prepared and practised on tape; reports can be given quickly and easily, saving valuable time and maintaining a permanent record. It can even be used for dictation and transcribing. In law enforcement, speech recordings of intoxicated persons can be introduced as court evidence in many states, as well as refreshing the memory of the arresting officer in case of trial delay.
The Ampro Tape Recorder can be used as a public address system and as a powerful amplifying system for broadcasting high fidelity music at lectures or social functions of the police recreation club.
The Ampro has two-speed operation, 7½ inches per second for hi-fi music and voice and 3¾ inches per second for economical voice recordings. Operating the Ampro is simplicity itself . . . just push the convenient piano-type keys for instant Start, Stop, Forward, Reverse and Record. In addition, the Ampro is lightweight and completely portable, with the most complete line of accessories in the industry. You'll find it the most practical and versatile tape recorder for your Department.
GRAFLEX® INC.,
ROCHESTER 8, N.Y.
A SUBSIDIARY OF GPE
For further information see your Graflex dealer or write Dept. C-17.

THE NEW POLICE GUIDE



Administration
Personnel Management
Training; Charts
Traffic Duties
Traffic Safety
Selective Assignment
Intoxication Tests
Parades and Assemblies
Crime Investigation
Scientific Aids
Confidential Informants
Surveillances
Interrogatories
Interviews
Patrol Methods
Techniques of Arrest
Mechanics of Arrest
Police Communications
Disaster Control
Strikes and Riots
Unlawful Assemblies
Sociology; Psychology
Juvenile Delinquency
Criminal Law; Arrest
Search and Seizure
Case Preparation
Appearance in Court
Public Relations

By RAYMOND E. CLIFT
Formerly Superintendent of the Cincinnati Police Academy

Covers Every Phase of Police Work

Price: $7.50—Money refunded if not satisfied

THE W. H. ANDERSON COMPANY
Publishers—646 Main St., Cincinnati 1, Ohio

Precautions: The main source of error lies in the tendency of the equipment to change its characteristics due to improper alignment. As noted above, it is essential that a calibrating device be built into the instrument and used regularly to check the characteristics of the device.

TABLE IV
STANDARDS FOR DISTANCE JUDGMENT FOR THE ORIGINAL SMALL CAR TEST*

Rating	*Cm. Error*
A	0.39
B	40.46
C+	47.56
C	57.78
C–	79.93
D	94.131
E	132.200

* Each instrument built must be standardized under the conditions, and with the particular drivers, with which it is to be used. There have been found to be some geographical differences that may be due to the need for greater skill in judging distances in some parts of the country. The results are given merely as a guide to the ranges of scores that might be expected.

Conditions: The illumination should come from directly above this type of perception test, so the cars will not cast a shadow, which would assist in estimating their position.

Pass: Those rating A, B, C+, and C. Applicants rating C– or D should have a notation on their license: "Care in Passing."

Refer: Those rating E should be referred to an optometrist or ophthalmologist for a careful check-up.

Field of Vision

The lateral field of vision is very important in driving, and the recognition of its importance is even more essential to the driver for safe motoring. While it is impossible to increase the field of vision by a simple test, we can call the attention of the applicant to the importance of good field, or side, vision. When the fields cannot be expanded, a driver can be taught to turn his head and eyes, especially at intersections, to compensate for his restricted fields. Extreme cases of restricted or narrow field of vision are commonly described as "tunnel vision." The person so afflicted can only see straight ahead and cannot detect motion without turning his head or eyes from side to side.

License examiners can make only an abbreviated test for the field of vision, but Nuchols devised a simple test that was improved by Lauer, and which is easy to use. It is merely a quadrant divided, or calibrated, into 220 degrees and cut out to fit the face as closely as possible. The subject is asked to fixate the finger of the examiner at the center. The test object, such as a pencil, is moved slowly back and forth along the edge of the chart until it disappears. The scale gives the width of the field in degrees.

TABLE V
FIELD OF VISION INDEX

Rating	*Per Cent in the Group*	*Percentage of Drivers Above the Lower Limit*	*Degrees of Arc in Binocular Vision*
A	5	5	Above 195
B	10	15	185-194
C+	20	35	176-184
C	30	65	169-175
C–	20	85	159-168
D	10	95	145-158
E	5	100	Below 144

Conditions: There are no special conditions to be observed with this test, except that the instrument is to be held properly and a light colored pencil used for the target. The applicant must stand so a shadow will not be cast from the pencil.

Procedure: The examiner should insert the index and small finger of his left hand in the two holes of the perimeter and balance it lightly on the two middle fingers extended in a relaxed manner. A little practice is necessary to do this easily and deftly. Be sure the index finger is perpendicular. Set the perimeter squarely against the face and give the following directions: "Now look straight at my index finger." (The other finger will be hidden by a nasal strip of the newer instruments.) With your right hand carry the target above the edge of the perimeter.

Start out beyond 200 degrees and move back and forth slowly and by short movements, working toward the center. Add these directions: "When you see movement at the side, say 'Now.'" The position when the applicant says "Now," should be checked several times before recording, to be certain of the limits of discrimination. Hold target lightly against the perimeter and read as accurately as possible to the nearest degree.

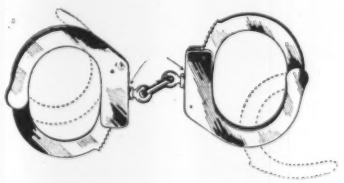
Reverse hands and measure the other side, holding the perimeter the same way, but on the other side.

Precautions: The subject should be watched carefully so that he does not peek. The perimeter should be held level and square with the face, and the target finger must be held perpendicularly. Move the target back and forth until you are sure of the vanishing point.

Pass: Those with A, B, C+, and C rating. Persons with a C– or D should have a notation on the license, "Restricted field."

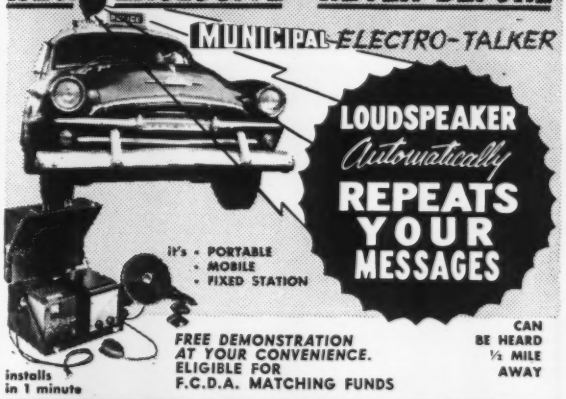
Refer: Anyone with two eyes who has an E rating, to a vision specialist.

If a perimeter check of the field of vision shows abnormality, the driver should be allowed to drive under a restricted license, at the discretion of the examiner.



NEW EXCLUSIVE - NEVER BEFORE

MUNICIPAL ELECTRO-TALKER



LOUDSPEAKER Automatically REPEATS YOUR MESSAGES

it's • PORTABLE • MOBILE • FIXED STATION

installs in 1 minute

FREE DEMONSTRATION AT YOUR CONVENIENCE. ELIGIBLE FOR F.C.D.A. MATCHING FUNDS

CAN BE HEARD ½ MILE AWAY

VITAL FOR SAFETY - SEE IT NOW!

ELECTRO TALKER CORP.

773-9 MEEKER AVE., BROOKLYN 22, N. Y.

Sales Agent's and Distributor's Inquiries Invited!

Page 1
Form 3526
Rev. 2-49

Read the instructions on page 2 of this form.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, AND CIRCULATION REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 (Title 39, United States Code, Section 233)

Of ------ POLICE ------ published bi-monthly
(Insert exact title of publication) (State exact frequency of issue)

at Fulton, Missouri for year ending Aug.,31 , 1957
(Name of post office and State where publication has second-class entry)

1. The names and addresses of the publisher, editor, managing editor, and business managers are:

	Name	Address
Publisher	Charles C Thomas, Publisher	301-327 E. Lawrence Ave., Springfield, Ill.
Editor	V. A. Leonard, Professor Police Administration,	State College of Washington,
Managing editor	V. A. Leonard, (as above)	Pullman, Washington
Business manager	Charles C Thomas, Publisher	

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)

Name	Address
Charles C Thomas, Publisher	301-327 E. Lawrence Ave., Springfield, Ill.
Payne E. L. Thomas	Island Bay Lane, Lake Springfield, " "
Charles C Thomas	Maryes Hill, Chatham, Illinois
N. P. Thomas	" " " "

3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

Name	Address
------none ------	

4. Paragraphs 2 and 3 include, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting; also the statements in the two paragraphs show the affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner.

5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.) none

Charles C Thomas, Publisher
N. P. Thomas, Partner
(Signature of editor, publisher, business manager, or owner)

Sworn to and subscribed before me this 28th day of December, 1956

[SEAL] Velma Earles

(My commission expires 7-30, , 1957)

39—16730-1

Specify: America's Finest

"HEAD-MASTER"®

POLICE UNIFORM CAPS

Regulation Cap
Blue Serge
Solid Band
Style No. 157

Warm Weather Cap
Blue Serge
Ventilated Braid
Style No. 358

Insist on the Finest Police Caps by specifying Wentworth "HEAD-MASTER," when you order your cap needs from your Uniform or Equipment Dealer • Genuine inside Cane Bands • Pre-shrunk, waterproofed materials • Genuine Leather Sweatbands • Standard Materials for long wearing quality • Less replacement cost saves you money • Union Made by Craftsmen.

WRITE TODAY FOR ILLUSTRATED POLICE CAP CIRCULAR OR SEE YOUR LOCAL UNIFORM DEALER

Specify "HEAD-MASTER"® . . . made only by

WENTWORTH-FORMAN CO., INC.

21 EDINBORO ST., DEPT. P, BOSTON 11, MASS.

Established 1895

ACADEMY FOR SCIENTIFIC INTERROGATION · TRUTH THROUGH SCIENCE

To establish and maintain a standard of ethics and professional qualifications

POLYGRAPH and INTERROGATION

Edited by ROBERT D. STEEL

Introduction to the Profession of Interviewing and Interrogation

By W. R. McKee

EDITOR'S NOTE: *Mr. McKee attended Brown University, majoring in criminology. After serving as a dive bomber pilot with the Marine Corps during World War II, he was engaged for five years in probation and parole work in California (Orange County). Mr. McKee has been identified with a well known Federal Investigative Agency as a Special Agent for six years, the last two of which have been in the position as Agent-in-Charge of a field office of this organization. He is the author of the book* ELEMENTS OF INTERROGATION *scheduled for publication in the Police Science Series.*

EVERYWHERE there is evidence that the calibre of some personnel in the field of investigation is higher today than ever before. Personnel in the technical subdivisions, such as chemists, laboratory technicians, communications people and others, work with applied sciences. They have already established high standards of professionalism. Concurrently, has come the need for higher standards among those who interview and interrogate.

Questioning by torture dates back to before the beginning of recorded history. Various texts describe in detail interrogation by torture and duress down through the ages. Is all this ancient history? Unfortunately, it isn't! Recently, the author had the misfortune to observe an "expert" investigator extract information from a suspect by conducting his questioning to the tune of a sap bounced gently, but ever so meaningfully, on the table between the two. Therefore, we find that in beginning the study of professional interviewing and interrogation we must first consider the debit side of the ledger-unprofessional conduct.

Equally insidious running mates to illegal interrogations are the thousands of incomplete and unsuccessful investigations throughout the free world each year. They are unsuccessful and unsolved because of mediocre, unprofessional questioning. Statisticians have shown that incompetency is one of the major causes of the unsolved case. Various case reviews have emphasized this point. Specifically, what caused these investigations to fail? Perhaps it was the witness who became so infuriated or frightened during questioning that he refused to cooperate. Perhaps it was the victim who was so improperly handled that he lost his patience—or his nerve. Or perhaps it was the suspect who refused to talk because the few kind words that would have loosened his tongue never were forthcoming.

EFFECT OF UNPROFESSIONAL CONDUCT

Who is affected by unprofessional conduct, and on whom may the disgraces and inadequacies reflect? Agencies employing the talents of interviewers and interrogators are more numerous and far-flung than one might realize. There are the law enforcement agencies—federal, state, county and municipal. They vary in size from thousands of men on the one extreme to a handful on the other. There are the parole, probation and penal officers. There are the private agencies of quasi-official nature that specialize in the fields of arson, insurance and the public utilities. Also, the "house" officers, plant protection personnel who concern themselves with commercial and industrial security. Lastly, there are the military intelligence services.

These are the people who interrogate and interview. These are the people to whom the concept of professionalism is most important. What is the effect when some of their numbers conduct themselves in an unprofessional manner? Let us first consider the man with the sap with which he beats out the tune of his questioning. He is a symbol of all questioning by force or duress. He frequently causes what we will call the "little incident." Through his brutality or boorishness, he creates hate and

Address: Mr. W. R. McKee, c/o District Intelligence Office, 13th Naval District Headquarters, Seattle 15, Washington.

KEELER POLYGRAPH!

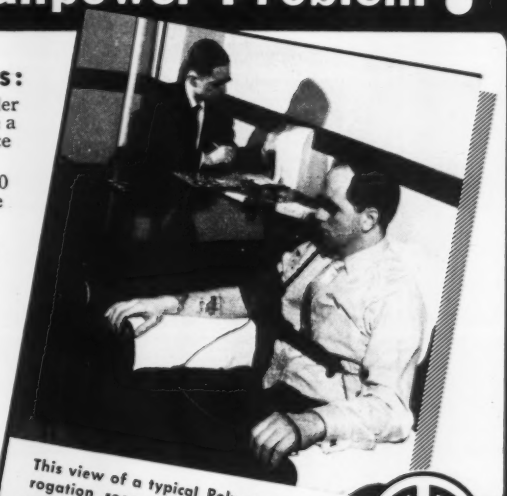
Can Help Solve Your Manpower Problem!

Here are typical Polygraph User Reports:

- Eastern Police Chief: "In the first month of operation, the Keeler Polygraph enabled us to solve a two-year-old murder and to make a sizable recovery of stolen cash. The Polygraph was our chief source of information on these cases."
- Detective Agency: "Psychologically, our Polygraph is worth $10,000 just sitting in the office — aside from actually saving time and expense in our personnel investigations."
- Midwestern Police Chief: "We kept a log on our machine during the first three months of operation. In that short time, the manhour savings and dollar value of stolen goods recovered more than paid for our polygraph room, training the examiner, and the cost of the machine."
- Western Police Department: "Results obtained through the use of the Polygraph materially reduce manhours spent on investigations, and aid substantially in the quick elimination of innocent suspects in numerous cases."

AND REMEMBER: *Keeler Polygraph is the* only *"Lie Detector" developed and perfected through more than 15 years of close cooperation with law enforcement agencies throughout the world.*

Write for Bulletin 3792



This view of a typical Polygraph interrogation room shows examiner determining truth or falsehood of subject's responses to questioning.

ASSOCIATED RESEARCH, Incorporated

"Precision Instruments Since 1936"

3792 WEST BELMONT AVENUE • CHICAGO 18, ILLINOIS

disgust. He causes the citizen who has the misfortune to come into contact with him to carry a private grudge against all investigators. This prejudice is passed by word of mouth from person to person and eventually is translated into public opinion. One cannot deal with the people as an investigator for any length of time without personally experiencing the deterrent effect of such public opinion.

There is the "big incident." This reaction to the man with the sap in his hand is less frequent but more spectacular. The "big incident" takes place in the court room and appears in the newspaper headlines. The words "police brutality," and the atmosphere of hate and disgust that attend them, are still heard and felt occasionally by every investigator. His job becomes more difficult.

The long range results of the "little incident" and the "big incident" are not nebulous. They are usually most concrete. They are reflected in the low salaries of investigators. They are reflected in the lack of technical improvements, in poor police facilities and in crumbling jails. The public will not allot funds to a cause it mistrusts or dislikes.

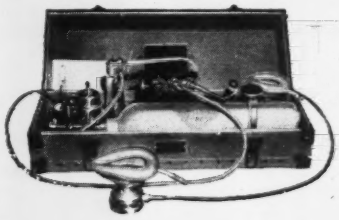
RESULTS OF UNSOLVED CASES

What are the results of the unsolved case? Remember that the unsolved case often is caused by the inadequacies of the interviewer or the interrogator. Certainly, the first consideration is the fact that a wrong-doer is free to attack society again. He may be a sexual psychopath, insurance defrauder, saboteur, arsonist or common thief. When offenders escape apprehension, the cost of law enforcement is raised considerably. Certainly, the financial ramifications of the unsolved case are devastating. Insurance rates and product costs are directly affected. The untrained, unskilled interviewer or interrogator may well be the costliest item in the inventory of an agency.

ATTITUDE OF INVESTIGATOR

Then let us examine the unfortunate attitudes of some investigators towards the concept of professional interviewing and interrogation. One typical reaction is demonstrated in the statement, "I know how. I was questioning people before you were born." Unfortunately, interrogation talents do not improve solely with age like fruit cakes. Frequently, the record of this group shows that it is relatively incompetent. Public reaction belies their techniques. The duplications of effort necessary—the unsure and archaic methods used—show that they are often narrow and bigoted. The approach of such persons to the problems of all types of questioning is sometimes like a football team with only one play. When the opponent happens to be deep in the defense of the position attacked, this group does not have the imagination or variety of technique to feint the opposition. It shuns the use of practical psychology and is noted for

FAST IMMEDIATE SERVICE
IN
RESPIRATORY EMERGENCIES
STEPHENSON
"MINUTEMAN" RESUSCITATOR
(weighs only 30 pounds)



INHALATOR RESUSCITATOR ASPIRATOR

Especially designed in weight and size, for quick, easy application in cases of fume suffocation, gas poisoning, heart attacks etc.

Hundreds of Departments have found the Stephenson "Minuteman" a MUST for their patrol-car service.

Write for FREE demonstration or pamphlet P-101

STEPHENSON CORPORATION
RED BANK NEW JERSEY

"Makers of the Harger Drunkometer and Breathalyzer for determination of intoxication by analysis of breath."

its reliance on certain "crutches" which are poor substitutes for skill.

When a lazy, know-it-all, attitude is predominant, there is rarely any attempt to supervise or control the process of questioning. Review and constructive criticism are inadequate or non-existent. It is noteworthy that this group rarely replaces itself. The "old guard" jealously covets what little it knows. It treats knowledge as a lodge secret and ignores the need for training. There are many who do know how! But they are rarely, if ever, found in the group which says, "Don't bother me. I know how. I was doing this before you were born."

There are those that disparage the possibility of learning to interview or interrogate. They say, "You have it or you don't." These persons claim that to be a good interviewer or interrogator one has to be born with the talent. There is this to say; a truly great interrogator, like a truly great athlete, undoubtedly possesses certain inherent talents that give him a capacity for greatness. However, others on the team also contribute to the total score. The proficiency rating of an organization is based on the average contribution of its membership, not the top marks of a few.

Possession of a certain capacity does not guarantee that it will be fulfilled. On the other hand, the efficiency level of an organization can be raised amazingly by the proper application of training and constructive supervision. Conversely, a lack of training in the skill of questioning dooms any unit to impotence. Therefore, the "you have it or you don't" system develops few outstanding individuals and too few adequate interviewers and interrogators. The achievements of those who advocate and practice the professional approach demonstrate the fallacy of this attitude.

PROFESSIONAL QUESTIONING

So much for the debit side—the unprofessional side. A detailed study of professional questioning necessitates a definition of terms, an appreciation of its worth as a tool and a comprehension of the tenor and scope of the subject matter.

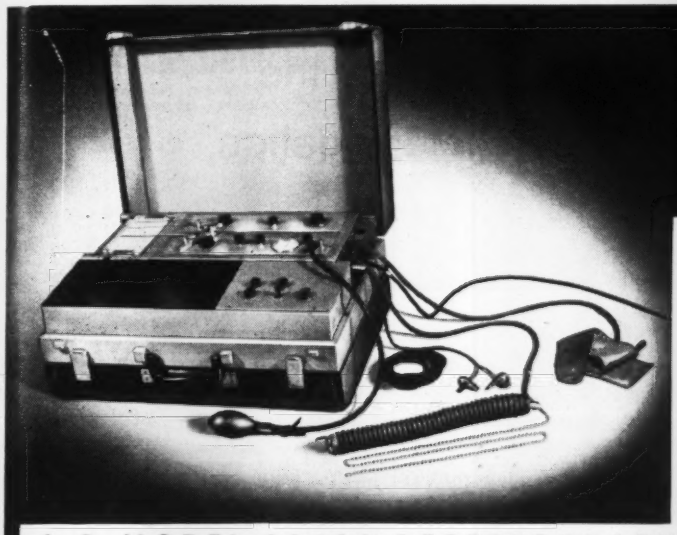
Generally speaking, to interview is to converse with in order to obtain information. To interrogate is to question formally. Both interviewing and interrogating are the act of determining fact through personal contact and verbal intercourse. Any need to determine truth implies the necessity of detecting lies. One cannot interview or interrogate without due regard for both requirements. In fulfilling them, the difference between interviewing and interrogation becomes a matter of intensity of effort. Therefore, for our purposes, interviewing is defined as the questioning of any complainant, victim, witness, informer or informant in order to obtain facts. The term interrogation is reserved specifically for the act of questioning persons who are suspected of complicity. These separate definitions are necessary in a detailed study.

What part does interviewing play in investigation? The leading role! From the inception of the inquiry onward, it is the *basic tool* of the investigator. He uses it constantly, and the skill with which he uses it will determine the success of his search for the truth and his detection of the falsehood. What part does interrogation play? It is the "piece de resistance" of the investigation. Frequently, it is the source of the only leads in a case. Professional, competent interviewing and interrogation are available to all investigating bodies. They do not cost money. They are the basic tools of the art, not merely investigative aids which are used only on particular occasions.

SCOPE OF THE SUBJECT MATTER

Lastly, let us consider the tenor and scope of the subject matter. Here is the theme! Successful interviewing and interrogation are skills. They require knowledge. They require experience. They are acknowledged as professions only when the knowledge and experience are assimilated, and applied with skill.

Consider the game of chess. One must know certain basic things about the game to play at all. One must know the set-up of the board, the movements of the pieces and elementary rules. Given these, a player may proceed into competition. He will progress to a certain plateau of achievement by the process of trial and error. He will make many mistakes in so doing and will rarely, if ever, reach his full capability. This same person might have studied under experienced players and learned the fundamentals of the game. Through training and constructive criticism, he would progress to a level of achievement which would be limited only by



Lie Detectors

A. C. MODEL 22499 DECEPTOGRAPH

This model is an engineering achievement combining for the first time sectionalized components and complete A.C. operation in portable units.

To meet the expanding use and acceptance of lie detection instruments and techniques in law enforcement and commerce, Stoelting has developed extremely sensitive equipment. Portable or Desk Model Deceptographs featuring sectionalized components, A.C. operation, high sensitivity and superb quality are available. Write for details.

C. H. Stoelting Co. 424 N. HOMAN AVE., CHICAGO 24, ILL.

his intelligence and the competence of the instruction. He would become more expert and reach his peak more rapidly.

I use the comparison with the game of chess because the success of an interview or interrogation progresses in direct proportion to the skill of the questioner and the response of the competition. As in chess, certain basic, classical openings are used—and the game is on. It is impossible to play by rote. There are infinite variables to the game now. The opponent's every move must be analysed and parried. Each new course of action must be met, while constantly moving forward to the objective. Each move contributes to the eventual success, or failure, of the effort. Each move is based on the players application of his knowledge and experience—to wit, his skill. An expert player becomes completely absorbed by the ever changing, constantly challenging problems that face him; and in the finding of the truth is the satisfaction of the "check mate."

SCOPE OF THE INQUIRY

What is the scope of the inquiry? Does it consist solely to defining and discussing such terms as witness and suspect, approach technique and mechanical aid, confession and admission? These are lifeless terms, and if we consider them exclusively we have missed our mark. The key to our error is in the word—lifeless! You question *people*. They are alive and complex. They may be friends or strangers, rich or poor, brilliant or dull; but they have one thing in common. When you meet them and work with them, they are enmeshed in the special circumstances of emergency, emotion and stress.

A basic consideration is that what is routine to the investigator is frequently unusual, even bizarre, to the layman. The study of interviewing and interrogation is actually the study of people and their reactions as they assume roles foreign to their experience.

In conclusion—remember that your professional standing will be in direct proportion to the honest and successful application of your knowledge. Any man who brags of his ability to "extract" information from a suspect, or of how he "set that witness straight," is in the wrong job. Nor is there such a thing as luck in questioning. Success can only be the result of skill born of knowledge, inspired by training, and tempered by experience.

Major Crime Jumps 14 Per Cent

Major crimes in the United States increased 14.4 per cent in the first six months of 1956, Federal Bureau of Investigation Director J. Edgar Hoover stated in his biennial report to the nation. The comparison was with the first six months of 1955. It indicated the slight dip in the major crime rate last year was a short-lived trend. Hoover called the new figures a "sharp reversal," noting that the last increase comparable to 14.4 per cent in a six months period occurred in the first half of 1946.

The Certification Program of the Academy for Scientific Interrogation

EDITOR'S NOTE: *This is the first in a series of three articles on the A.S.I. Certification Program prepared by Albert L. Breitzmann, Secretary of the Certifications Committee.*

THE Certification Program of the Academy for Scientific Interrogation was authorized by vote on the floor of the Annual Meeting, September 14, 1952, in Chicago. The Executive Board was given the power to appoint five members as the Certifications Committee, with one of these designated by the board as Secretary.

Many of our members continue to ask questions about this program and in the hope of clearing up all questions and some misinformation which has unfortunately been circulated, this program is being explained and clarified in POLICE, so that all interested persons can be fully informed.

If the candidate for certification meets all of the prerequisites as to character, training, fundamental knowledge of anatomy and physiology, two years practice in the field, 25 years of age or older, of mature judgment, etc., etc., his application is then accepted by the Committee. The candidate is then mailed Part I examination which is a written screening type exam. After passing this, he is immediately eligible for Part II examination.

All candidates taking Part II, a very comprehensive examination, will be permitted to use reference material in answering questions; but a "closed book" written portion is required in Part III. Part II also consists of submission of twenty-five case reports including a variety of case types. The polygrams are not to be included, but the reports must be accompanied by index sheets to indicate by whom the candidate was employed at the time he conducted the examinations. The Committee is not interested in the names of clients or subjects, when the candidate prefers to keep them confidential. The case reports will include: the reason for the test; list of all questions used; summary of chart interpretation; summary of interrogation; summary of events confirming or refuting the examiner's opinion; a critical summary of the entire case including personal observation of the subject; basis for examiner's opinion; reason for conducting the test in the manner it was done; and critical conclusions. These case reports are then forwarded by the Secretary to each Committee member who examines them and if they are found satisfactory, and if the candidate has passed the Part II written examination, he is eligible for Part III.

Part III is given just prior to the annual meeting and the candidate must appear before the Committee. It consists of an oral examination which is directed to ascertain: the candidate's familiarity with the related basic sciences; interrogation techniques employed; the breadth of actual experience; and general qualifications as a specialist in lie detection. To this is added a "closed book" written examination. A practical examination is also conducted so that the candidate can demonstrate the operation of an instrument of an approved type; and render opinions on, and discussion of, sample charts. The candidate is also required to be the subject of a polygraph examination wherein questions are asked about his background. The vote to Certify a candidate must be unanimous by all members present.

The total fee for Certification is $100.00. Fifteen dollars must accompany the application. When the candidate is notified of acceptance for Part II he must forward $35.00 before he can begin this portion. The last $50.00 is payable when the candidate is notified that he has been accepted for Part III. This money is paid to the Secretary of the Certifications Committee and is used to defray the expenses of the program. The candidate agrees in his original application that refunds will not be made in the event that he does not complete this work for any reason. Members of the Committee are allowed $20.00 per day (maximum of two days) to help defray expenses incurred in arriving at the place of the meeting in advance in order to conduct examinations. The certificates awarded to those who complete the work cost about $10.00 each.

This program was patterned after long established medical certification programs and the Committee will, as the committees in the medical field have done, do everything in its power to make certification by the Academy as important in our field as it is in other highly respected professional fields. A.S.I. members will recall that Leonarde Keeler, along with a number of other outstanding pioneers in the polygraph field, early voiced the need for controls such as this type of professionalization program promises through certification.

PURPOSES OF THE CERTIFICATIONS PROGRAM

First: To elevate the standards and advance the cause of lie detection.

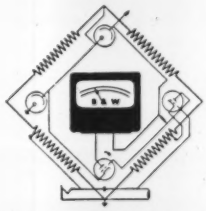
Second: To determine the competence of practitioners professing to be specialists in lie detection.

Third: To arrange, control, and conduct examinations to test the qualifications of voluntary candidates appearing before the Committee for certification as specialists in instrumental lie detection.

Fourth: To grant and issue certifi-

Address: Mr. Albert L. Breitzmann, Secretary, Certifications Committee, 215 Brown Avenue, Evanston, Illinois.

B & W Lie Detector
The modern means of Instrumental Lie Detection



Write:
B & W ASSOCIATES
MICHIGAN CITY, INDIANA

cates of qualification as specialists in the field of deception detection to candidates successful in demonstrating their proficiency.

Fifth: To serve the public, enforcement agencies, business and industry, and governmental agencies or departments by preparing lists of certified specialists.

These activities proceed from the Constitution of A.S.I., and the Incorporation papers thereof, in which it is stated that the purpose of the Academy shall be "To establish and maintain a standard of professional qualifications."

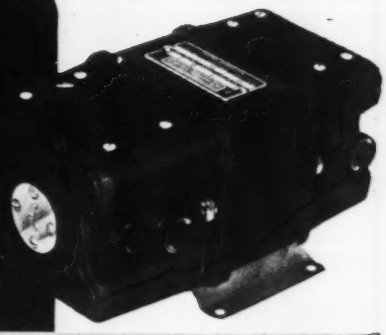
VALUE OF CERTIFICATION

The public, enforcement agencies, business and industry, and governmental agencies or departments may come to utilize the certificate from this Committee as a means of determining who are well grounded specialists in lie detection.

Lists of those persons holding certificates from this Committee, and engaged in the practice of instrumental lie detection, will be published.

Each certificate granted or issued does not of itself confer or purport to confer upon any person any degree or legal qualifications, privileges, or license, nor does the Committee intend in any way to interfere with or limit the professional activities of any qualified examiner. Its chief aim is to standardize the qualifications for specialists in lie detection, and to certify as specialists those who voluntarily appear before the Committee for such recognition and certification, according to its regulations and requirements.

PACKS the POWER for 100-WATT SIGNALS...



Since the earliest days of mobile radio . . . some thirty years ago . . . the name of **CARTER** has maintained its prominence in the manufacture of rotary power supplies.

Today, modern 100 watt police radio communication equipment, is produced by ALL major set manufacturers, and obtain power from **CARTER** Duovolt Genemotors . . . the kind most recommended by experts where dependability counts first.

CARTER 6/12v. DuoVolt Genemotors operate equally well on 6 or 12 volt input. They combine the efficiency, economy, and capacity to insure top performance in the best and most powerful mobile radios ever available to the nation's police.

ROTARY Carter POWER
(TRADE MARK)

CARTER MOTOR CO.
2769 W. George St., Chicago 18
Please send complete information on **CARTER** Rotary Power Supplies.
Name_____
Address_____
City_____ Zone____ State____

REVOCATION OF CERTIFICATES

A Certificate of Qualification may be revoked by this Committee if:

1. Any representation or statement made to the Committee or to any of its representatives by the person so certified, including the statement contained in the application for certification, shall have been false or intentionally misleading.

2. The person so certified shall not in fact have been eligible to receive certification, irrespective of whether or not the facts constituting such ineligibility were known to or could have been ascertained by this Committee, its members, directors, examiners, officers, or agents at or before the time of issuance of such Certificate of Qualification.

3. Any rule governing examination for certification shall have been violated by the person so certified and the fact of such violation shall not have been ascertained until after the issuance of the Certificate of Qualification.

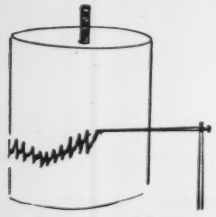
4. The person so certified shall violate the standards of ethical practice then accepted by the A.S.I., and without limitation of the foregoing, the suspension of, or expulsion from the rights and privileges of membership in the A.S.I. shall be conclusive evidence of a violation of such standards of ethical practice.

5. The person so certified shall fail to comply with or violate, or the issuance of receipt by him of such Certificate of Qualification shall have been contrary to or in violation of the Constitution, By-Laws, or the Rules and Regulations of the Academy or of this Committee.

6. The person so certified terminates his or her membership in the Academy.

Upon revocation of any Certificate of Qualifications by this Committee as aforesaid, the holder thereof shall return his Certificate of Qualifications and all other evidence of certification to the Secretary of the Committee and his or her name shall be removed from the list of Certificate holders.

The following will appear in the next two issues of POLICE: 1. Prerequisites to Eligibility. 2. Requirements. 3. Examinations. 4. Case Reports Required. 5. Applications and Fees.



The Emotional Stress Meter

A More Sensitive Means of Detecting and Recording Various Physiological Changes Accompanying Mild Emotional Stresses[1]

By Homer J. Dana and Claude C. Barnett

EDITOR'S NOTE: *Professor Dana has been Director of the Engineering Experiment Station at the State College of Washington since 1942 and President of the Washington Research Foundation since 1949. He is a member of the American Institute of Electrical Engineers and numerous other scientific organizations. On February 24, 1956, he was presented with the coveted distinguished service certificate by the Spokane Chapter of the Washington Society of Professional Engineers for his untiring efforts on behalf of the engineering profession and unselfish service to the Society and his fellow engineers. Researcher and inventor, his reports, papers and articles on scientific subjects are familiar to members of all professional organizations in his special spheres of interest. In the following article, Professor Dana presents with Mr. Barnett an interesting report on a new approach in polygraph engineering design. The field of electronics is one of major interest to Mr. Barnett who was presently working toward the Ph.D., degree in the Department of Physics at the State College of Washington.*

INTRODUCTION

EMOTIONAL stress, regardless of how induced, or to what degree, is accompanied by some measurable physiological change in the subject concerned. Furthermore, emotional stress is by no means limited to individuals who are attempting to deceive, although in the past this is the field which has received considerable attention by criminologists.

In general only two or three physiological changes are measured by the polygraph commonly in use today and these changes can sometimes be somewhat modified by the conscious control of the subject. However, it has been demonstrated that there are other physiological changes accompanying changes in emotional stress and which apparently are not under any measure of control by the subject. This paper is intended to discuss both the present methods and some new methods of detecting and measuring physiological changes and to compare their relative effectiveness in revealing emotional stress.

PRESENT METHODS OF DETECTING EMOTIONAL STRESS

A practical instrument for detecting and measuring physiological changes accompanying emotional stress was developed by Dr. John A. Larson and used early in the 1920's under the supervision of Police Chief August Vollmer of Berkeley, California. It consisted of a blood pressure cuff and a respiration belt, both attached to recording pens traversing a record chart. With this instrument, Larson was able to arrive at the truth in a large number of cases of interrogation of criminals where the answers alone were not sufficient. The subsequently proven usefulness of the lie detector or polygraph has resulted in its widespread adoption by criminal investigators, the OSI, and other similar agencies. However, in spite of its usefulness and its obvious shortcomings, the modern lie detector employs the same principles and has undergone no marked basic improvements over the first model, except as to weight, size, and mechanical details (see Figure 1).

Considerable skill and experience is necessary in the successful use of the polygraph both in formulating a suitable series of questions to submit to the subject and in correctly interpreting the reactions recorded on the chart in response to each question.[1]

Furthermore, experience has shown that the presently used polygraph can be successfully applied to not more than 80 to 85% of the subjects. The 15 to 20% of extremely difficult subjects include psychopaths, chronic prevaricators, and a few whose arteries are so deeply covered with fat that the pulse cannot be easily detected.

One serious objection to the present polygraph has to do with the blood pressure cuff. Its adjustment is somewhat critical in order to get a suitable recording amplitude. Also, it is so uncomfortable to the subject that the pressure must be released after two or three minutes, thus interrupting the interrogation and diverting the subject's attention. On some subjects the cuff must be pumped up to such a high pressure to get a recording that there is danger of rupturing some of the blood vessels in the forearm.

A more serious indictment against the blood pressure

Address: Professor Homer J. Dana, Director, Engineering Experiment Station, Division of Industrial Research, State College of Washington, Pullman, Washington.

[1] For instance, the relevant-irrelevant question technique may consist of a series of some ten to twenty questions interspersed with "key questions" or "critical questions" which are intended to arouse an emotional response if the subject is guilty. Experience has shown that in most instances a subject progressively approaches a "saturation" point as the tests are repeated with a progressive decrease in response.

FIGURE 1. The original Larson polygraph was developed in the early 1920's and first used under the direction of Chief August Vollmer of the Police Department of Berkeley, California. It is now a valued historic museum piece and has been on exhibition for the past thirteen years in the Police Science Department at the State College of Washington. This polygraph, which is still in working condition, includes two stylii, one of which is coupled pneumatically to the blood pressure cuff and the other to the respiration belt on the subject. The chief difference between the original instrument and the modern polygraph rests in reduced size and weight, and increased mechanical sensitivity.

cuff and apparently one which has been entirely overlooked is the effects of change of temperature of the subject's arm covered by the cuff. Medical opinion holds that the arm temperature can easily change as much as two degrees during interrogation, whereas actual tests on the cuff shows that a change of one degree will result in a drift of one centimeter on the recording pen. This drift can mistakenly be attributed to emotional stress and no doubt has frequently been so interpreted.

In addition to the cuff and the respiration belt, some use has been made of the psycho-galvanic reflex. However, its showing is effected by the tendency of the individual to perspire and this tendency varies widely in different individuals. Furthermore, if the subject perspires freely because of general nervousness and not in response to any certain question, the P.G.R. is entirely ineffective. Due to wide differences of opinion regarding the validity of the P.G.R. it has received only limited acceptance by investigators.

IMPROVED METHODS OF DETECTING EMOTIONAL STRESS

The Plethysmograph

In the light of the recognized limitations of the polygraph, and of the objections to its use because of physical discomfort extending even to physical injury to the subject, efforts have recently been directed by the State College of Washington toward developing some basic improvements in detecting physiological changes. First to receive attention was a substitute for the blood pressure cuff. Following the suggestion of Donald B. Lindsley, it has been found that a plethysmograph attached to a segment of the body will give the same type of recorded curve as the blood pressure cuff. The principle of the electrical plethysmograph is very simple. The electrical impedance of a segment of the body depends in part upon the volume of blood it contains, which in turn is affected by the blood pressure and by the tension of the blood vessel walls. Any change in pressure, or tension, or both, will change the electrical impedance, which can easily be measured.

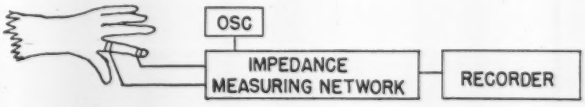


FIGURE 2. Two electrodes attached to some segment of the body such as the finger, and connected to a suitable oscillator and amplifier, measure the change in resistance due to the change in blood volume with each pulse of the heart. The adjustments are not critical and the signal can be amplified to any desired level for recording. The electrodes are in no way uncomfortable to the subject.

Blood pressure changes in any segment of the body are of three types. First, accompanying each heart beat there are pressure waves which course throughout the blood vessel system of the body. Second, there are slower pressure changes occurring over a number of heart beats, and third, very slow changes which occur over a period of minutes. These composite changes are all reflected in the record obtained from an electrical plethysmograph. Even the shift of the dicrotic notch in the systolic curve is plainly shown.

Thus, as has been indicated, the electrical plethysmograph not only will give the same information as the pressure cuff, but it is not uncomfortable, and involves no physical hazard to the subject. Furthermore, it is reasonably easy to apply and does not involve critical adjustment.

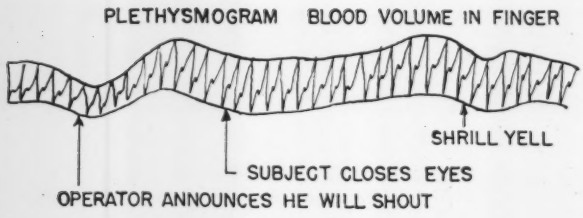


FIGURE 3. An impedance plethysmogram contains the same essential information as the curve from a blood pressure cuff. The similarity between these two curves was first noted by Dr. Nyboer of Dartmouth.

The Oxyhemograph

When a subject experiences even a mild emotional stress there results a change in the body requirements for oxygen, and this change in oxygen requirement does not appear to be under his control. Moreover, any change in the oxygen content of the blood results in a change in the color of the blood which can be detected and measured by means of a suitable color-sensitive instrument. This change in oxygen requirement can be satisfied only by deeper or more rapid breathing. Hence, even though a subject may try to evade detection by control of his breathing, the correlation between his respiration record, and the curve indicating blood color is sure to reveal the presence of emotional stress.

The oxyhemograph is a clinical instrument commonly used for determining the oxygen content of the blood. This is accomplished rather easily and without discomfort to the subject. Basically, it consists of two photo cells equipped with suitable light filters, looking at a light through the pina of the subject's ear. The change in the color of the blood due to change in oxygen content is recognized by the two photo cells which are connected to a suitable differentiating circuit driving a curve drawing recorder.

The oxyhemograph and the respiration belt, therefore, when drawing curves simultaneously, constitute a pair of indicators which supplement each other in revealing the presence of emotional stress in the subject.

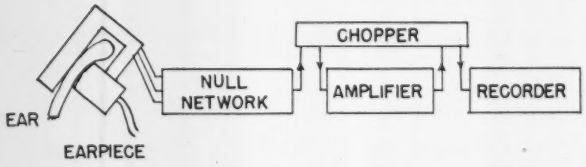


FIGURE 4. Two photo electric cells, one with a red filter and the other with an infrared filter "look" through the pina of the ear to detect changes in the color of the blood as affected by oxygen content. As would be expected, there is an appreciable time lag between the occurrence of an emotional stress and a recorded change in the color of the blood.

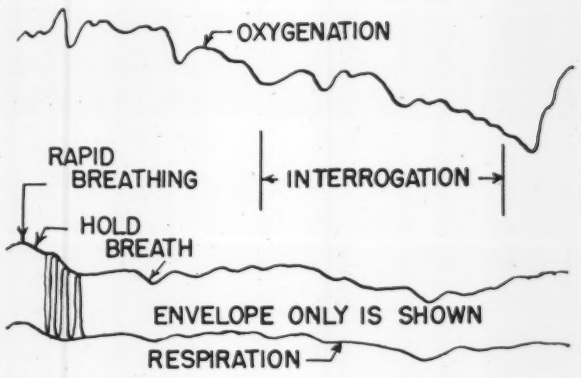


FIGURE 5. An emotional stress is accompanied by a requirement for more oxygen in the blood, which in turn can be supplied only by deeper or faster breathing. Simultaneous curves of oxygenation and of respiration reveal a close relationship between the two.

PULSE WAVE VELOCITY

Accompanying each heart beat, a pressure wave travels along the arteries from the heart to the extremities of the body. There appears to be at least three types of pulse wave velocity variations taking place more or less simultaneously. These are: (1) gross variations or changes in the average velocity; (2) smaller rythmic variations due to cross coupling between the respiratory and the heart nerve centers, and (3) specific variations associated with emotional stress. The velocity of this composite pulse wave depends, in part, upon the diameter and elasticity of the blood vessels. Furthermore, it has been found that even mild emotional stress causes a change in these blood vessels with resulting changes in pulse wave velocity. It also appears that these changes are not under the control of the subject.

Characteristics of the change in pulse wave velocity are: (1) its high sensitivity to changes in emotional stress; (2) its large percentage change, and (3) its relative stability. The measurement of pulse wave velocity is accomplished by measuring the time interval required

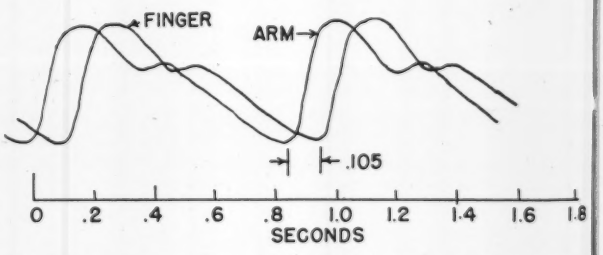


FIGURE 6. For purpose of illustration, two plethysmograms are shown taken simultaneously, one at the shoulder and other at the finger of the subject. The displacement of these two curves indicates the time required for the pulse to travel the length of the arm, which is a measure of the pulse wave velocity. A suitable electronic circuit continuously plots the changes in this pulse wave velocity which is significant in revealing emotional stress.

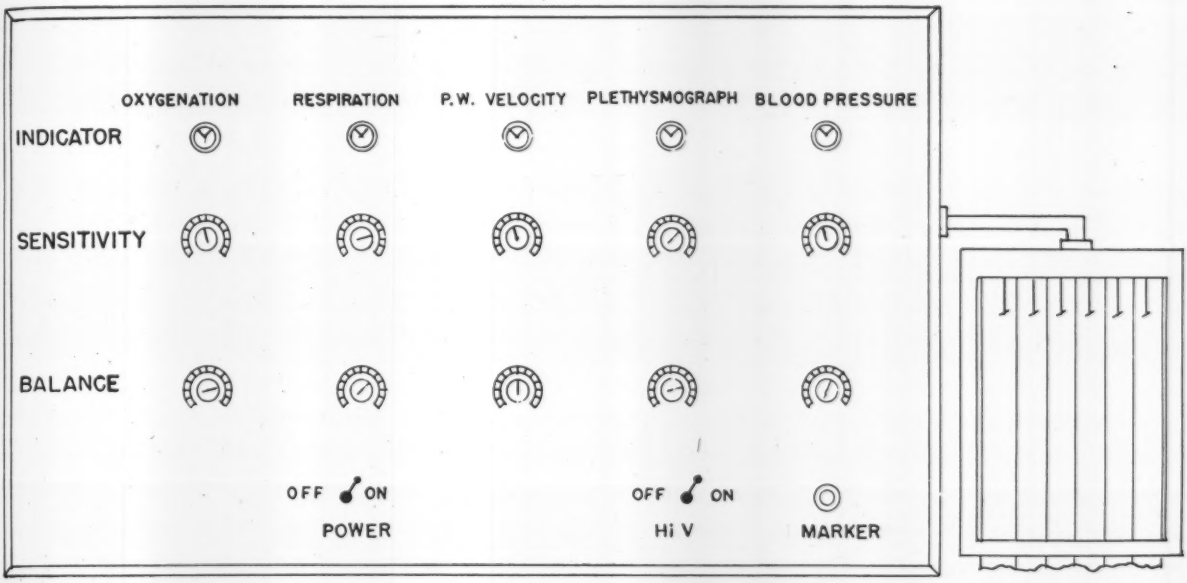


FIGURE 7. The experimental prototype-E.S. Meter includes oxyhemograph, respiration belt, plethysmograph, and measurement of changes in pulse wave velocity. For purposes of direct comparison with the plethysmograph, the conventional blood pressure cuff is to be added temporarily during evaluation studies.

The electronic circuit for each of the five detectors has its own sensitivity and balance controls and its own indicator "eye." This enables the operator to make the necessary adjustments on each detector before starting the chart and beginning the interrogation.

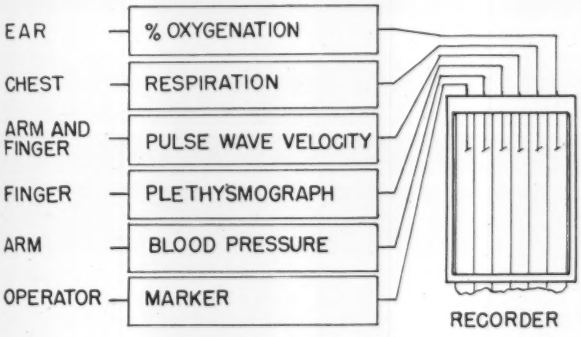


FIGURE 8. Each of the five detectors is suitably attached to the subject and connected through electronic circuits to the chart recorder. It is pointed out that including the blood pressure cuff is only for the purpose of a comparative study with the plethysmograph.

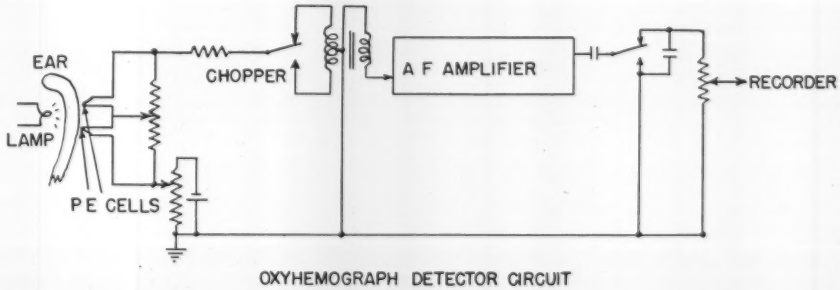
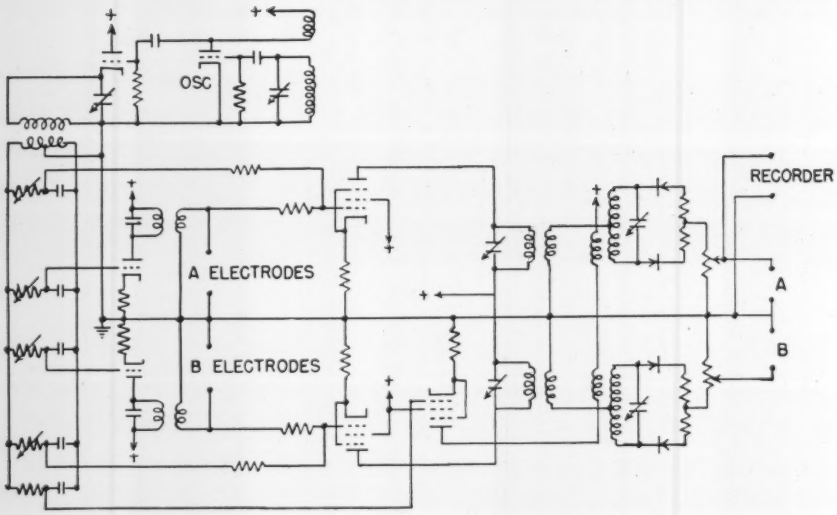
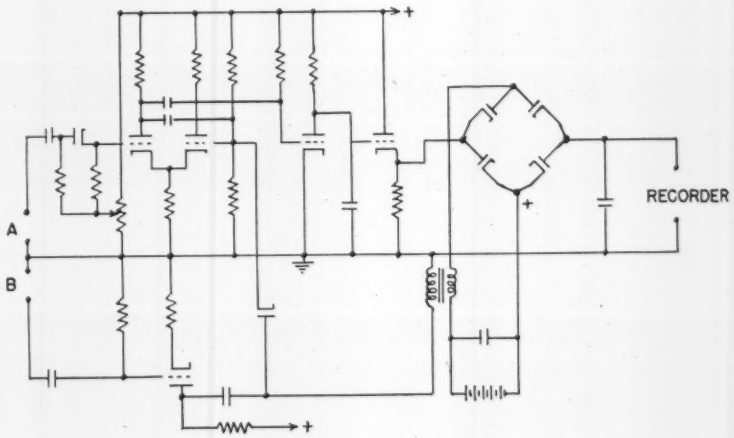


FIGURE 9. A suitable photo electric detector attached to the ear notes changes in the color of the blood being pumped through the capillaries. The output from the detector, which is varying D.C. is then amplified to drive a recorder to show these changes continuously during interrogation.



DUAL PLETHYSMOGRAPH CIRCUITS

FIGURE 10. Two identical plethysmograph circuits are used, one attached to the arm and one to the finger. One plots the varying impedance curve, as a plethysmogram while both circuits combine to measure changes in pulse wave velocity.



PULSE WAVE TIMER CIRCUIT

FIGURE 11. The timer circuit includes a multivibrator triggered by a pulser diode, which, upon receiving a pulse from the arm plethysmograph, starts to charge a timer network. This charging is continued until a second pulse is received from the finger plethysmograph, which opens a bi-directional switch permitting the recorder to measure the accumulated charge. At the same time, this second pulse restores the multivibrator to its neutral position ready to receive the next heart beat pulse from the arm. Thus the recorder notes any change in timing between the two pulses.

for a pulse wave to travel between two points on a segment of the body. Changes in this time interval are detected and recorded by means of an electronic circuit attached to include this segment which might be the arm from the shoulder to the wrist, or some shorter segment of the arm.

The continuous recording of the change in pulse wave velocity reveals any change in emotional stress which may accompany interrogation of the subject.

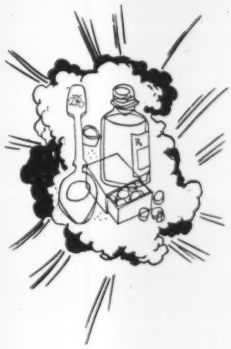
An Experimental Model of the Emotional Stress Meter

In preparation for extensive evaluation tests an experimental E.S. Meter is being assembled to include not only the plethysmograph, the oximeter and the respiration belt, and the pulse wave velocity device, but also the blood pressure cuff for the purposes of direct comparison. Figure 7 shows the general plan of the experimental unit. No particular effort has been directed toward attaining compactness or light weight since the first purpose is to provide a unit suitable for extensive evaluation studies.

CONCLUSIONS

For many years the polygraph has been employed to detect emotional stresses aroused in a subject who is undergoing interrogation. Although it has proved to be a valuable aid in criminal interrogation and in other fields, it does have serious limitations. However, no really significant basic improvements have been made in polygraphs in all the years of their use, except for the controversial psychogalvanic reflex.

Impelled by a realization of the limitations of the present means of detecting and measuring emotional stress, the State College of Washington has set about to make some basic improvements in this field. These improvements consist of the oxyhemograph and of the pulse wave velocity measurement. This combination is very sensitive to very small physiological changes induced by mild emotional stress. A proposed exhaustive evaluation study is being directed toward determining the limitations of this new combination.



The Drug Addiction Muddle

By Lawrence Kolb, M.D.

EDITOR'S NOTE: *Dr. Lawrence Kolb received his M.D. degree from the University of Maryland, School of Medicine, in 1908, and entered the United States Public Health Service as a commissioned officer in 1909. In the Service he had numerous assignments, including one to the New York State Psychiatric Institute in 1915 for the study of psychiatry. He organized and conducted as superintendent three hospitals for mental disease, including a hospital for psychoneurotic veterans at Waukesha, Wisconsin, in 1920, the Department of Justice Medical Center, Springfield, Missouri, in 1933, and the hospital for narcotic drug addicts at Lexington, Kentucky, in 1935. In 1923, he came to the Hygienic Laboratory, now the National Institutes of Health, in order to study drug addiction for the Service. On a three-year assignment to Europe, 1928-1931, for certain immigration studies, he observed European methods of handling the drug addiction problem. In 1938, he was made Assistant Surgeon General in charge of the Division of Mental Hygiene, now the National Institute of Mental Health, of the Public Health Service. He retired from the Service in 1945 and accepted the position of Medical Consultant to the Bureau of Prisons of California. Later in the same year he became Deputy Medical Director of the Department of Mental Hygiene of California. He retired from this position in 1951 and went to the Norristown State Hospital, Norristown, Pennsylvania, as Assistant Superintendent and while there made an exhaustive study of the mental health needs of Philadelphia for the Philadelphia Mental Health Survey Committee.*

Dr. Kolb has contributed numerous articles to scientific journals on mental disease, mental hygiene, alcoholism, and drug addiction. His latest contribution, "Let's Stop This Narcotic Hysteria," was written for a popular magazine in order to present some facts about drug addiction.

DRUG addiction is primarily a health problem, but to keep it under adequate control requires more assistance from police authorities than most health problems do. State and Federal laws have been enacted over the past fifty years and international agreements and treaties made in an effort to control addiction by keeping certain narcotics away from people who might unwittingly or deliberately use them and become addicts.

The continued effort to control addiction has met with a large measure of success in practically all countries including the United States. But, unfortunately, in this country, the health features of addiction have been subordinated to police measures to such an extent that what started off as a movement to protect health has degenerated into a crusade against emotionally sick people. Misinformed persons brush expert medical opinion aside and through propaganda, most of it false and misleading, secure the enactment of laws that produce the social disorder, the disease, death and crime among addicts that proper measures would prevent or cure.

Address: Dr. Lawrence Kolb, 6645 32nd Street, N.W., Washington, D. C.

The estimated number of addicts in the United States at present is 60,000.[2] Of these about 50,000 use some form of opium and 10,000 use marihuana or two opium-like synthetic drugs, demerol and methadone. Considerably less than 1% use cocaine.

OPIUM FIRST IN IMPORTANCE

Opium, the most important of the addicting drugs is used habitually throughout the world by millions of people but, as mentioned above, there are at present only about 50,000 opium addicts in the United States. Most of these people are addicted to morphine or heroin. Before the passage of anti-narcotic laws, there was much addiction to opium in the form of laudanum, and from eating and smoking opium. In the decade 1900-1910 there was an average annual importation of 148,000 pounds of smoking opium[1] an amount sufficient to supply about 52,000 opium smokers. The so-called opium-smoking dens were common in many of our large cities, at that time.

Morphine, heroin, and other addicting opium drugs differ in toxicity and have minor differences in physiological effects, but fundamentally their effects are similar. They are all pain-relieving, soothing drugs especially attractive to neurotic people because they tend to suppress the emotional turmoil that makes such people feel anxious and insecure. If these were the only effects of taking opium and its derivatives, this drug would be the most important one available to man, for it could be used to increase the efficiency of some neurotic shrinking people, to abate the anxieties that so often lead to mental disease, and it could lift thousands of drunkards out of the gutter[3] as will be explained later. Unfortunately, however, opium and its widely used derivatives have an effect that make them justly dreaded as addicting drugs. With habitual use of any of them, the body builds up physical tolerance to the drug and, along with the tolerance, becomes dependent upon it for proper performance of numerous physical functions, so that when use of the drug is abruptly discontinued, the victim becomes in-

WRITE TODAY FOR:

Wentworth's Illustrated Circular On

POLICE BADGES

Showing Over 50 Different Styles
In Actual Size For

- OFFICERS
- SHERIFFS
- AUX. POLICE
- CITY OFFICIALS
- PLANT GUARDS
- PATROLMEN
- POLICEWOMEN
- CIVIL DEFENSE
- GIFTS
- HONORARY

For Caps—Coats—Wallets—Lapels

ALSO

ILLUSTRATED CIRCULARS IN COLOR ON

CIVIL DEFENSE POLICE SUPPLIES

- C. D. Decals for Autos and Equipment
- C. D. Armbands
- C. D. Badges for Auxiliary Police
- C. D. Certificates and Citations
- C. D. Auto Emblems
- C. D. Embroidered Shoulder Patches
- Night Sticks

All Equipment Made According to F.C.D.A. Regulations

"America's Headquarters" for Badges and C. D. Supplies

WENTWORTH-FORMAN CO., INC.
21 EDINBORO ST., DEPT. P, BOSTON 11, MASS.
Established 1895

tensely ill and may even die unless he receives appropriate treatment. Such an individual, now an addict, must have a dose of the drug several times daily to ward off oncoming discomfort that would otherwise become acute. Constant need of the drug makes a virtual slave of him. Almost without exception, he resents this condition and seeks treatment for it. But if he has a neurosis or some other emotional disturbance, as practically all present-day addicts have, the treatment may fail to effect a permanent cure. This is largely because of a complex psychological dependence upon the drug that in later stages of addiction is more difficult to cure than the physical dependence. It is evidence of an emotional disease that the addict does not understand. Opiates relieve the tensions of the disease. And for this reason some persons who have become addicts are more efficient when regularly taking small maintenance doses than they were before their addiction.[4, 5] But even such addicts want to be cured since all of them suffer from the troublesome physical dependence.

PSYCHIATRIC CONDITIONS AS CAUSE

Where the securing of opiates is regulated, as it is in the United States and many other countries, opiate addiction seldom occurs in the absence of a psychiatric condition. When addiction does occur in normal people, it is easily cured. This leaves a residue of more or less unstable addicts who are difficult to cure. Members of the Residual group of opium addicts have much in common with skid-row alcoholics. Both groups are especially susceptible because of underlying emotional turmoil and body tensions that the drugs relieve, and both are difficult to cure because of this dependency and because of habit patterns that grow stronger as use of the drug is prolonged.

When opiates were freely available to drunkards in this country, many of them got rid of their drunkenness by becoming addicts to morphine or heroin, chiefly to morphine.[3] In the shift, alcohol was discontinued completely if the drunkard took sufficient opiate to relieve the underlying stress. There was no permanent cure of the stress, but the shift from alcohol to an opiate in many cases changed useless and often dangerous drunkards into well-behaved citizens. For unlike alcohol, morphine and heroin soothe without causing drunkenness; they leave the victim calm and in full possession of his faculties. Aggressive impulses are not released by opiates, as they are by alcohol, and contrary to popular conception in the United States, there is no aggressive crime resulting from the direct effect of opium or its derivatives.

CONTINUED USE DELETERIOUS

The continued use of opiates in large doses is deleterious to physical health, but harm has not been shown to occur in persons who regularly takes doses up to five or six grains or even more of morphine or heroin daily. However, the severe physical withdrawal symptoms that occur when the drug is suddenly withdrawn from such patients suggest that an unhealthy physical adjustment has been necessary to make the body tolerant to the drug. The addict suffers physical harm from frequent forced withdrawals of the drug with resultant illness. Many addicts suffer from their inability to buy both adequate food and expensive narcotics. Damage also results from the use of soiled hypodermic needles that cause infections. These are the reasons that many present-day addicts are emaciated and appear to be in bad health. Adequate food, administered after the withdrawal sickness has been treated, quickly restores such persons to normal physical health and appearance.

Opiates, including the much publicized heroin, do not cause character deterioration by their direct effects; nevertheless a large proportion of present-day addicts are poor characters. This is because addicts are, in most cases, recruited from among unstable people including those with criminal tendencies. The latter are especially susceptible to addiction and, unlike more normal people, are very difficult to cure.

In order to acquire the drugs they crave, addicts have to violate the narcotic laws. This means they have to be secretive and must associate with people of questionable character. Many of the emotionally unstable addicts who would not otherwise commit a crime, become petty theives, passers of worthless checks, and forgers of drug prescriptions—some even commit more serious crimes—to prevent the violent illness that sudden abstinance would cause. These various factors lead to some character deterioration.

MISREPRESENTATION

Greatly exaggerated statements are reportedly made

about how narcotics cause disease, moral deterioration and crime. The situation may be put in proper perspective by comparing drug addiction with alcoholism, an addiction similar in its gripping psychological aspects to addiction to opiates. There are approximately 4,500,000 alcoholics in the United States. The social disorder, domestic distress, disease and crime produced by opiates, including heroin, is microscopic as compared with that produced by alcohol. This is true even if we include the disorder and crime due to procedures which account for practically all the narcotic crimes.

In contrast a careful study has shown that alcoholic intemperance figured to some extent in about 50 per cent of the crimes committed by a large group of incarcerated criminals.[6] In another large group[7] more than 15 per cent of murders and 22 per cent of sex crimes were committed by persons who were drunk when they committed the crime.

Alcohol was a factor[8] in many of the 36,000 deaths and 1,250,000 injuries due to motor vehicle accidents in the United States in 1954. Neither heroin nor morphine cause reduction in motor control or critical judgment and it may safely be said that there was not one motor accident in 1954 due to these drugs.

Each year hospitals treating mental disease in the United States have more than 18,000 admissions with alcohol insanity and thousands of additional admissions with chronic alcoholism. Insanity due to morphine, heroin and other opiates is so rare that it is not mentioned in reports from these institutions. In forty years of experience with thousands of opiate addicts, and psychotics who are not addicts, I have seen only two persons whose psychosis was due to an opiate. These two became psychotic when deprived of the drug and promptly recovered on resumption of its use two months later.

In the face of positive comparison between the two addictions, one of major importance and the other of relatively minor importance, propaganda against drug addiction has inflated this minor problem to such an extent that many people who are not concerned about alcoholism believe the United States is in grave peril from narcotic addiction.

An example of the amazing effects of propaganda on an intelligent person is seen in the following quotation from a prominent citizen: "The shocking fact is that despite all our efforts . . . Communist China is succeeding in its terrible plan to cripple and emasculate us by furnishing ever-increasing quantities of habit-forming drugs for sale and in fact, for free distribution in both the continental United States and to our troops overseas." The armed services made a survey of addiction in the military forces in the Far East in 1954 and a world wide survey in 1955. The reports showed that there were three addicts per 100,000 military personnel and that the rate in the Far East was below the civilian rate in the United States.

The absurd statements about the role of China in emasculating us through promoting drug addiction are equaled in absurdity by statements about crime, the

MUNICIPAL POLICE ADMINISTRATION

Published by the International City Managers' Association

Fourth Edition, 1954. Clothbound. 533 Pages.

Edited by O. W. WILSON

Dean of the School of Criminology, University of California, and former Police Chief of Wichita, Kansas

THE HANDBOOK WHICH WAS DEVELOPED TO GUIDE POLICE CHIEFS AND OTHER TOP OFFICERS IN PLANNING AND DIRECTING LAW ENFORCEMENT ACTIVITIES

It's Authoritative: Written by outstanding police officers and edited by Dean Wilson.

It's Widely Used: Some of the many cities which have taken or are conducting group training courses based on this text are—

San Antonio, Texas
Hampton, Virginia
Peoria, Illinois
Phoenix, Arizona
Norwalk, Connecticut
Moses Lake, Washington

IT ANSWERS SUCH QUESTIONS AS:

- How to Determine Effective Organization
- How to Administer a Personnel Program
- How to Prepare a Police Department Budget
- How to Set Up an In-Service Training Program
- How to Organize the Patrol Function
- How to Develop a Public Relations Program

. . . and hundreds of other "Hows" of police administration

USE THE HANDY ORDER FORM

To join the ranks of Police Officers who are making daily use of this book.

INSTITUTE FOR TRAINING IN MUNICIPAL ADMINISTRATION
1313 E. 60th Street, Chicago 37, Illinois

☐ Please send me copy of MUNICIPAL POLICE ADMINISTRATION at $7.50 postpaid.

☐ Bill me ☐ Bill city ☐ Check enclosed

☐ Please send free folder describing this book in more detail.

☐ Please send details of the in-service training course which is based on this book.

NAME_____

TITLE _____

ADDRESS_____

PLASTICO MOULAGE

the perfect

REPRODUCTION MATERIAL

for

IDENTIFICATION WORK

Order from your Police Equipment Supplier

Send for Free Brochure

Formulated exclusively by

DOUGLAS & STURGESS

475 Bryant St. San Francisco 7, Calif.

menace to school children, the sinister aspects of heroin, the deteriorating effects of narcotics on human beings and a host of other grossly exaggerated evils.

ADDICTION IS DECREASING

Drug addiction has been decreasing in the United States since about 1900 except for one brief period during and immediately following World War II. Channels for smuggling interrupted by the war were then reopened and addiction which had decreased during the war increased to about one in three thousand of the population.

Due to moderate State and city laws and to the 1909 ban on the importation of smoking opium there was a material decrease in drug addiction before the Harrison Narcotic Law became effective in 1915. At the peak there was about one addict in 300 of the population. A striking thing about the narcotic situation is that as drug addiction decreased over a 50-year period from one in 300 to one in 3,000 of the population, excitement about it increased, so that from a health problem that physicians earnestly tried to abate through advocacy of appropriate legislation, it developed in the public mind into a great national menace and crime problem.

Drug addiction has become headline news carrying grossly exaggerated statements and inferences. Judges are attacked for being soft on narcotic offenders and scientists are attacked for giving actual facts about drug addiction if these facts disagree with what misinformed crusading people have been led to believe. In its handling of the addiction problem, the United States is falling into the position that the world escaped from several centuries ago when the mentally ill persons were imprisoned and physically punished because of their perversity.

Such is the deplorable state of public opinion that an official recently said in praise of a pending bill—"The language of the new bill will enable us to trap an addict like an animal."

LEGISLATION VERSUS REASON

Federal legislative proposals, some of which have unfortunately already been made into law, would legalize wire tapping, abolish the need for search warrants, do away with the protection of certain long established legal procedures, increase sentences up to forty years and even give death sentences for narcotic violations, make it legal to arrest and jail addicts as vagrants even when they are working and not violating any law. Some of the measures proposed would impair the usefulness of the government hospitals now treating addicts by abolishing the acceptance of voluntary patients and forcing the hospitals to report all about their voluntary patients to narcotic enforcement officers. Already mandatory minimum sentences are required for certain offenses under Federal and many State laws. And there is in some cases no probation or parole. The situation is most tragic. Such drastic measures cause disease, death and crime in emotionally ill persons who if properly treated, would be law abiding, working, useful citizens.

In the United States in 1954 there were 12,346 convictions for narcotic law violations. The persons involved were given prison sentences totaling thousands of years. In sixteen States the minimum sentence for illegal possession of narcotics is two years. The nucleus of prisoners convicted for narcotics violations added to those addicts who commit petty crimes to secure the morphine or heroin needed to prevent withdrawal sickness adds up to a sizeable group of prisoners. Narcotic raids made after months of preparation help to gather them in. Newspapers headline the resultant arrests, or the arrest of a more or less prominent person who smokes a marihuana cigaret or secures some opiate illegally. Publicity of this kind conditions the public to accept such statements as that 25% of crimes are committed by addicts or that the selling of heroin is comparable in seriousness with arson, burglary, forgery, larceny, kidnapping and rape. It is of course well known to students of the subject that heroin, like morphine, is a soothing drug that reduces the impulse to aggressive crime.

MARIHUANA IS DANGEROUS

Marihuana, like alcohol, is an intoxicating and therefore dangerous drug. The Mayors Committee on marihuana[9] made the most comprehensive study of marihuana (Indian Hemp) that has yet been made. The Committee found that marihuana caused psychotic episodes in susceptible people and that it had effects on behavior that might lead to aggressive acts. The same study showed that there was no association between crime and

marihuana in New York, and that school children were not involved in any organized traffic in this drug. Four other careful studies in the United States have failed to show any connection between marihuana and crime.[10, 11, 12, 13]

There are fewer than 5,000 marihuana addicts in the United States and the smallness of this number may explain why no authentic marihuana crimes have come to light here.

Drug addiction, especially addiction to such opiates as morphine and heroin, is a serious thing for the addict because of the physical slavery it produces. It is especially serious for neurotic people upon whom it imposes both psychological and physical slavery. Police action is needed for effective control but in the United States addiction has become almost exclusively a problem for punitive action. The patient has been lost sight of in the pursuit of an imagined criminal and the pursuit itself has forced patients into criminal actions, giving a slight flavor of truth to amazing exaggerations about addiction as a cause of crime.

Conditions created by misinformed enthusiasts and the silencing of physicians have become deplorable, but a ray of light has recently appeared. A group of distinguished physicians appointed by the New York Academy of Medicine made an excellent report, calling attention to errors in the present program for dealing with the narcotic problem and suggesting remedies. And the American Psychiatric Association in a thoughtful release to the press has called for a halt in present trends.

It is certain that just as the world got away from executing witches and punishing the confused helpless insane, the United States will get away from hunting helpless addicts like "wild animals." Addicts, including the addicted peddlers of narcotics will be treated like the more or less harmless sick people they are. With proper management, 90% of the crime associated with addiction would disappear over night. There would still be some narcotic peddling for which judges should have authority to fix sentences appropriate for the crime with an eye to rehabilitation of the offender.

WESTERN EUROPE'S EXAMPLE

An examination of Western European methods of handling the drug addiction problem would give the United States an instructive lesson. In these countries, the physician's right to prescribe narcotics for his patient is not questioned. He is not sent to prison or denounced as a narcotic racketeer for using his professional judgment that certain addicts need morphine or heroin to enable them to live a law-abiding, useful life. The result is that there is no serious drug addiction problem in any country of Western Europe. However, all of these countries do regulate narcotics and send some people to prison for violating narcotics laws. Seventy-four people convicted in England in 1954 for violations involving opium and related drugs received sentences of twenty-eight days to twelve months. In that same year in Germany, 3,059 addicts were receiving drugs legally on medical prescription.

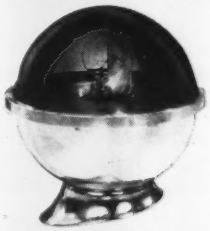
No one knows how many addicts there are in Western Europe but in England one physician in every 550 and in Germany one physician in every 95 is an addict.[14] It is estimated that in the United States one physician in every 200 is an addict.[15] The figures suggest the narcotics officers such as we have here (England has five narcotics inspectors, New York City has 200) could quickly turn up some thousands of addicts in Europe and, perhaps, show that in some countries the addiction rate is higher than in the United States.

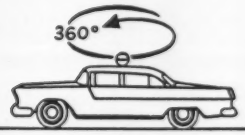
European officials know that the chronic addict is an emotionally sick person who needs help, that he is much less dangerous to himself and to society than the alcoholic and that most addicts work if allowed to do so. Consequently, they regulate narcotics rationally while the public absorbs American propaganda about the terrible narcotic menace that faces this country. For example, a European Embassy employee inquired anxiously whether it was true that 50% of American high school children were heroin addicts. In Europe marihuana is known as the "American Vice." Few people there know that the United States has less than 5,000 of the estimated 200,000,000[16, 17] marihuana addicts in the world.

A NEW UNDERSTANDING NEEDED

If the ridiculous propaganda that has been used in the United States to distort public opinion, promote vicious

Sensational! New! 360°
REVOLVING LIGHT





TRIPPE
HI-BALL

★ FREEZE-PROOF
★ WATER-PROOF
★ FADE-PROOF
★ TROUBLE-PROOF
★ EASY TO INSTALL OR REMOVE
★ MADE LIKE A FINE WATCH
★ BUILT FOR YEARS OF SERVICE

For wreckers, ambulances, emergency vehicles of all types here is the most eye-catching and effective light you can buy. The price is VERY LOW!

Write or Wire Today for Beautiful Catalog

TRIPPE MFG. CO., DEPT. A-1
133 No. Jefferson St., Chicago 6, Ill.

legislation and punish sick people could be diverted to constructive channels, a legal and administrative policy could quickly be established that would effectively control drug addiction. And this could be done without any of the enforcement excesses that now produce illness, tragedy and crime. Under the revamped policy, drug addiction would be treated, primarily, as a medical problem with the need of some police attention for its adequate control.

BIBLIOGRAPHY

1. Kolb, Lawrence and Du Mez, A. G.: The prevalence and trend of drug addiction in the United States and factors influencing it. *Pub. Health Rep.* pp. 1179-1204, May 23, 1954.
2. Bureau of Narcotics Estimate p 10 Hearings, Subcommittee on Improvements in the Federal Criminal Code. June 2, 3, and 8, 1955. U. S. Government Printing Office; Washington 1955.
3. Kolb, Lawrence: Types and characteristics of drug addicts. *Mental Hygiene*, 9:300-313, April, 1925.
4. Kolb, Lawrence: Pleasure and deterioration from narcotic addiction. *Mental Health*, 9:699-724, Oct., 1925.
5. Kolb, Lawrence: Drug addiction in its relation to crime. *Mental Hygiene*, 9:74-9, January, 1925.
6. Kolb, Lawrence: Alcoholism and public health. *Pub. Health Rep.*, 56:485-498, March 14, 1941.
7. Banay, Ralph S.: Alcoholism and crime. *Quart. J. Studies Alcohol*, 2:685-716, March, 1952.
8. The National Safety Chronicle. *Accident Facts*, 1955, pp. 53-55.
9. *The Marihuana Problem in the City of New York.* The Mayors Committee; Jacques Cattell Press, 1944.
10. Bromberg, Walter: Marihuana: A psychiatric study. *J.A.M.A.*, *113*:4-12, July, 1939.
11. Bromberg, Walter and Rodgers, Terry C.: Marihuana and aggressive crime. *Am. J. Psychiat.*, *61*:558, March, 1945.
12. Phalen, James M.: The marihuana bugaboo. *Military Surg.* 93:94-95, July, 1943.
13. Yawger, W. S.: Marihuana. *Am. J. Med. Sc.*, *195*:351, March, 1938.
14. United Nations Report.
15. Estimate personally given to author by Director Bureau of Narcotics.
16. Lewin, Louis: *Phantasia, Narcotics and Stimulating Drugs.* E. P. Dutton and Co. 1931.
17. Wolff, Pablo Oswaldo: *Marihuana in Latin America; The Threat It Constitutes.* The Lencare Press, Inc., 1948.

On the Crime Front

2½ MILLION MARK POSSIBLE

"If the current trend continues for the remainder of the year, 1956 will be the fifth consecutive year in which more than 2,000,000 major crimes will have been committed and the first year in which the crime total will reach the 2,500,000 mark," the announcement said. Statistics, assembled from police reports from all parts of the country showed an estimated 1,291,120 major crimes occurred from January to June, up 162,770 from the corresponding period in 1955.

"There was one major crime committed for each 129 persons in the general population of the United States during the first six months of 1956," the FBI reported. The calculation was made on an estimated population of 166,943,000 as of June 1 of this year. The renewed upward trend was about the same in town and country. Urban crime increased 14 per cent, rural crime 14.6 per cent. Showing the most marked increase was auto theft which spiraled 22.3 per cent nationally. The only major crime to reflect a national decrease was robbery, down 1.1 per cent.

TRAINING CHART #132 ANTAGONISM AIN'T ADMIRABLE
BOY, WOTTA ODD BALL! FIRST, HE'LL SAY "WHERE'S THE FIRE AT?" AND I'LL SAY "MAC, WHEN YOU ADDRESS ME LET'S NOT BE ENDING SENTENCES WITH PREPOSITIONS!" BOY, THAT'LL STOP HIM!
BOY, WOTTA ODD BALL AND WONT I TELL HIM OFF! FIRST I'LL SAY "MAC HOW LONG VA BEEN DRIVING A CAR?" AND HE'LL SAY "22 YEARS" AND I'LL SAY "WELL IVE ONLY BEEN WATCHING YOU FOR 2 MINUTES AND YOU STINK!"
FORTUNATELY WE AREN'T BURDENED WITH OFFICERS LIKE THE ONE PICTURED ON THIS TRAINING AID. BUT DOES THE PUBLIC KNOW IT? THEREFORE FOR EFFICIENT, COURTEOUS, TRAFFIC ENFORCEMENT REMEMBER THAT A PLEASANT EXPRESSION, BUSINESS LIKE CONVERSATION AND AN UNPREJUDICED MANNER WILL MAKE EACH OFFICER A RESPECTED PUBLIC RELATIONS SPECIALIST!
Lederick

From: *Daily Training Bulletin of the Los Angeles Police Department*, W. H. Parker, Chief.

Palm Prints Are Used to Establish Identity*

MANY investigators have asked, "Can palm prints be used to establish identity or as evidence in a fingerprint case the same as fingerprints?" The answer is definitely, "Yes." Palm prints place the wrongdoer in a position of double jeopardy, but since palm prints are not used as a means of personal identification they are not recorded by law enforcement agencies. Therefore, it is necessary that the suspect be in custody or available for palm printing before latent palm prints can be compared with known impressions.

The same definitions, procedures and techniques which apply to the science of fingerprints and fingerprint mechanics apply in every respect to palm prints. The evidential value of the latter is equal to fingerprint evidence. With respect to ridge structure and characteristics, palm prints afford a means of positive identification in exactly the same manner as do fingerprints.

Palm print evidence is sought just as diligently as fingerprints by investigators at crime scenes. No distinction is made between the two from the standpoint of evidence.

An experienced fingerprint man would just as soon work with palm prints as fingerprints in proving identity. Comparisons are much less common because palm print evidence is less frequently encountered in investigations as explained below.

In the great majority of instances, when objects are picked up or handled, they are touched almost exclusively by the fingertips. Palm prints are most frequently discovered on bulky or heavy objects which are carried or moved. The size or weight of the object necessitates increased contact with hand areas or more than the fingertips provide. This statement may be checked very quickly by making a personal observation. When you, the reader, pick up the next twelve objects, make a mental note of how many times the palms come in contact with the objects. You will readily appreciate the infrequency of palm print evidence.

In the illustration it will be noted that the so-called "life line" is a prominent crease on the palm. Creasing is at right angles to the ridges on the ball of the thumb and creasing on the middle phalanges of the index, middle and ring fingers is at right angles to the fissures. All these points are conspicuous and they are at times helpful when one is trying to determine what portion of the palm or fingers made ridge patterns found at a crime scene.

If the palm print in the illustration is turned upside down and examined at a spot under the ring finger, ridge formation which approximates a loop will be seen. It has all the necessary fundamentals of a loop-type pattern. A delta on either the right or left hand side may be selected to make the pattern a right or left slant loop.

BIBLIOGRAPHY

INBAU, FRED E.: Palm prints and fingerprints. *J. Crim. Law and Criminol.*, 25:3, 500-517.

Papillary skin covers the complete palmar surface of the hands; palm ridges are often used to establish identity; they are equally as good as fingerprints for that purpose.

* From Scott, Walter R.: *Fingerprint Mechanics.*

News and Announcements

TRAINING FOR ARSON INVESTIGATION ACCELERATES PACE*

1957 Purdue Seminar

Professor Shelby Gallien, Director, Public Safety Institute, Purdue University, West Lafayette, Indiana, has announced that the Thirteenth Annual Seminar and Training Course in Arson Investigation will be held April 29-May 3, 1957 at Purdue University.

More complete details may be obtained by communicating with Professor Gallien.

Short Course for Arson Investigators

The Third Annual Ohio State Arson School was held at Ohio State University, Columbus, Ohio, September 10 through September 14, 1956. The enrollment was limited to 46 persons. The School offered a program covering all phases of arson investigation both theoretical and practical.

The various subjects and speakers were as follows: NOTES AND STATEMENTS, was presented by Edward Hughes, Special Agent, National Board of Fire Underwriters.

LAWS OF ARSON, were discussed by Russell Spetrino; SECURING THE FIRE SCENE, by William Donahue; INSURANCE AND ARSON, by James Odenwald; MOTIVES, by Sam Sides; INTERROGATING SUSPECTS, by Willis Peterson; PHOTOGRAPHY, by John Kennedy.

Other topics covered were INVESTIGATING THE FIRE SCENE, by James Bassett; EVIDENCE-LEGAL, by William Lohr; EVIDENCE-PHYSICAL, by Milton Massie; CONFESSIONS, by William Merrick; SCIENTIFIC AIDS, THE LABORATORY, by Lloyd Shupe; THE PATHOLOGIST, by Lester Adelson, M.D.; FINGERPRINTS, by Arnold Fetter; COMBUSTION OF VOLATILE FUELS, by Dr. John Derfer; THE POLYGRAPH, by Herbert Lyle, M.D.; and panel discussions regarding the DUTIES AND RESPONSIBILITIES OF OFFICIALS IN ARSON INVESTIGATION.

Those in attendance took part in a fire problem set up by officials of the school. The problem consisted of the burning of a dwelling and the investigative procedures used in bringing the case to the courtroom. A mock trial was held which resulted in a 6-6 deadlock of the jury.

The school was sponsored by the Political Science Department, Ohio State University and the Ohio State Arson Bureau, Division of State Fire Marshal; Willis S. Peterson, Chief, Ohio State Arson Bureau was General Chairman of the School.

*From Richard C. Steinmetz, Chief Special Agent, Mutual Investigation Bureau, 20 N. Wacker Drive, Chicago 6, Illinois, and President of the International Association of Arson Investigators.

Second Annual Florida Seminar

Several hundred enthusiastic persons attended the Second Annual Seminar in Arson Detection and Investigation held on the University of Florida Campus in Gainesville on September 11-14, 1956. It was conducted by the General Extension Division of Florida and the Florida State Fire College in cooperation with related State, local and business agencies.

The Seminar was planned to provide broad general information, specific investigative techniques, a review of the latest laboratory aids and consideration of those detailed subjects that lead to more effective detection, apprehension, prosecution and conviction of the arsonist.

S. L. Stevens, Co-Chairman of the Seminar, a Special Agent with the National Board of Fire Underwriters, presided at the opening session.

Registrants were welcomed by John S. Allen, Vice-President, University of Florida, W. H. Barnett, Superintendent, Florida State Fire College and J. Edwin Larson, State Fire Marshal.

The following program was presented during the four day Seminar:

COMBINING ACTIVITIES OF ALL LAW ENFORCEMENT AGENCIES—*Brendan P. Battle*, Supervising Agent, NBFU, New York

PANEL-COORDINATING ARSON INVESTIGATIVE ACTIVITIES—Moderator: *Earl Ivey*, Chief, Fire Dept., Tallahassee
F. E. Viall, Fire Marshal, Daytona Beach
J. E. Bethea, Lt., Police Dept., Daytona Beach
J. E. Bailey, Fire Marshal, Jacksonville
H. V. Branch, Asst. Chief of Police, Jacksonville
R. G. Ward, Fire Marshal, Pensacola

NATURE AND CAUSES OF FIRE
J. W. Davis, Fire Marshal, Miami

PROCEDURE AT FIRE SCENE
J. A. Gidley, Fire Marshal, St. Petersburg

INVESTIGATIVE TECHNIQUES
John J. Savage, Special Agent, National Board of Fire Underwriters, St. Petersburg

REPORTS AND THEIR AID TO THE PROSECUTOR
William H. Hopper, Special Agent, Mutual Investigation Bureau, Chicago, Illinois

LEGAL AND ADMISSIBLE EVIDENCE IN ARSON CASES
William D. Hopkins, State Attorney, Tallahassee

AUTOMOBILE FIRES
Julian H. Clark, Assistant Manager, National Automobile Theft Bureau, Atlanta, Georgia

THE POLYGRAPH
Ross Anderson, Chief Investigator, Florida Sheriffs' Bureau, Tallahassee

CATCHING THE WOODS ARSONIST
J. P. Schuck, Chief Investigator, Florida Forest Service, Tallahassee

ARSON PHOTOGRAPHY—ILLUSTRATED
William H. Hopper, Special Agent, MIB

PROBLEMS OF JUVENILE COURTS
Marion W. Gooding, Judge, Juvenile Court, Jacksonville

JUVENILE FIRE SETTERS AND JUVENILE CONTROL
Neal Forney, Assistant Director, Institute of Government, University of North Carolina, Chapel Hill, N. C.

PSYCHOLOGICAL PROBLEMS AS APPLIED TO FIRE SETTERS AND THE SEX DEVIATE, TECHNIQUES OF INTERROGATION
Alan County, Executive Director, Psychopathic Clinic, Detroit, Michigan

VALUE OF RECORDS IN THE INVESTIGATION AS APPLIED TO MOTIVES
A. M. Willis, Deputy State Fire Marshal, Miami

FIRE INSPECTION AS AN AID TO ARSON PREVENTION
Frank H. Fitzpatrick, Capt., Fire Dept., Miami Beach

THE PATHOLOGIST AS AN AID IN ARSON CASES
Herman D. Jones, Director, Georgia Crime Laboratory, Atlanta, Georgia

Persons presiding at the various sessions were: Don McLead, Director, Florida Sheriff's Bureau, Tallahassee; Herbert C. Gregory, City Manager, Quincy; Harold Larsen, President, Florida State Firemen's Association, Mt. Dora; R. G. Zeigler, Florida Peace Officers Assn., Gainesville; J. Lance Lazonby, President, Florida Bar Association, Gainesville; Red Georiz, Special Agent, National Board of Fire Underwriters, Miami; Paul Pennington, Chief, Fire Department, Orlando.

W. H. Barnett, Superintendent, and J. A. Fleming, Instructor, Florida State Fire College, served as chairman and co-chairman respectively of the Seminar.

G. Manuel Turner, Assistant Dean, General Extension Division of Florida, served as coordinator for the Seminar.

NOTED CRIMINOLOGIST PASSES ON

Dr. Denis Carroll, well-known British criminologist, died recently in London of a heart ailment. He was 55 years old. Last year he presided at the Third International Congress on Criminology, which, largely as a result of his efforts, was held in London.

During his professional life, Dr. Carroll made an extensive study of delinquency and became a recognized authority on the subject. At Cambridge University he was a brilliant mathematician. He was made a member of the Royal College of Sur-

geons in 1927 and in the same year, he became a licentiate of the Royal College of Physicians.

ULTRASONIC BURGLAR ALARM PERFECTED

High-frequency sound waves can turn the atmosphere of a room into a ghost-like trap for burglars. A seemingly incredible new burglar alarm system, developed after years of experimentation and testing, will soon be available for protection of certain types of properties, with service supplied through Underwriters-approved central stations.

Called the ultrasonic burglar alarm by American District Telegraph Company, the organization which has released it for use throughout its protection network in the United States, the system continually "bounces" sound waves—inaudible to human ears—back and forth in the protected area. The instant an intruder opens a door or window, or moves within the room, he distorts the sound pattern and an automatic transmitter secretly flashes an emergency signal to the ADT Central Station. Police and ADT guards speed to investigate.

Uultrasonic systems are considered an improvement over conventional types of burglar alarms because they give more complete protection with less equipment. Up to 4,000 square feet of floor area can be protected by a single ultrasonic unit. Central station service assures prompt response to alarms and proper maintenance of the system.

STATES INVITED TO PARTICIPATE IN DRIVER IMPROVEMENT PROGRAM

The Driver Improvement Program which is an adjunct of the drivers' licensing program has been under way some 10 years. A study made in 1949 showed that 13 drivers per thousand had been processed through this program. In 1954 the ratio was 34 drivers per thousand according to this report. The amount of time elapsing was not stated.

According to the survey made recently, 1954, the highest 14 states, or those most active in the driver improvement program, were Massachusetts, North Carolina, New York, New Hampshire, North Dakota, Maryland, Maine, Florida, California, Utah, Iowa, Texas, New Mexico and Washington. This is approximately the order in which they were active although some were quite close to each other. A 207-page Manual is available from the American Association of Motor Vehicle Administrators, 912 Barr Bldg., Washington 6, D. C. Anyone interested in driver improvement should read this carefully.

Driver improvement is really a part of the drivers' licensing program for the control of problem drivers. If handled correctly it not only discourages those who are bad drivers, but the effects seem to spread to others who might be problem cases if not curbed in some way. The program seems to be well received by the public from the first few hundred cases studied in Iowa.

The Driving Research Laboratory at Iowa State College, Ames, Iowa, is set up to assist in this program in the various states that are willing to cooperate. All that is needed is an expression of the wish to cooperate by the administration of very simple forms which are marked by the applicants or examinees when called in. There is nothing at all objectionable or obnoxious about the forms. Each driver is asked to sign, pledging his support in promoting good driving in the future. Only 15 minutes are required to complete a form by any person reasonably literate. The illiterate are asked to do the best they can since results may be helpful in the final analysis of records.

The forms are forwarded to the Driving Research Laboratory where they are processed and the results returned to the various states that cooperate. Recommendations on the individual driver are given from an analysis of the psychological inventory of the driver's habits, attitudes and proclivities which apparently may have a bearing on the reason for his accidents. It constitutes one of the simplest forms of a clinical analysis.

The program is set up under national auspices and there is no charge for the service. The assurance that a block of 1,000 or so records can be secured within a reasonable time is desired.

The form used for problem drivers is white. It is given out to everyone who is called in at the discretion of the examining authorities. However, in order to have a control group the only stipulation for cooperation is that a similar number of pink forms be given at random to persons who are reapplying for a driver's license. These persons would not be problem drivers but would be picked here and there in order that there might be a comparison group set up. The whole study is in the nature of research and it is an essential part of the research to match the groups for statistical comparison.

Any state or official wishing to cooperate in this program should contact A. R. Lauer, Director of the Driving Research Laboratory, Iowa State College, Ames, Iowa, for full information and state the number of forms that might be needed. It will add nothing to the cost of driver improvement in the local states except mailing charges, etc.

The program is in no way a duplication of anything that has been done and in no way interferes with any previous or planned study by the local authorities. It is merely an aid to securing more information about drivers. We hope to secure some possible answer to the question—why do some automobile drivers have repeated accidents?

It is interesting to note that nine of these states most active in this program have the lowest fatality rate per 100 million vehicle miles while three are in the 3rd quartile and two in the groups of states having the highest fatality rate. It would appear that there is some possible relationship between fatality rates and the way drivers are handled. Seven or half of the states indicated as the most active in driver improvement are in the lower quartile group of states on motor vehicle fatality rates.

Law!
STUDY AT HOME
We guide you step by step—furnish all text material, including 14-volume Law Library. Training prepared by leading law professors and given by members of the bar. Degree of LL.B. Low cost, easy terms. Send for valuable Free Book, "Law Training for Leadership," *today*.
LaSalle Extension University, A Correspondence Institution
Dept. L 712 Chicago 5, Ill.

BLAK-RAY Black Light Criminology Kit Complete $67.20

Includes complete equipment and instructions for black-light fluorescent identification, tracing, trailing, tampering, document inspection, clue analysis.
For full information write—
BLACK LIGHT Corp. of America
Dept. P, San Gabriel, Calif.

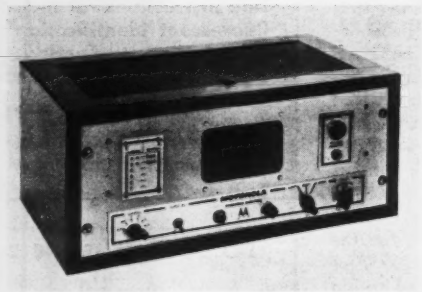
DO YOU WANT THE BEST?
Buy
"LIFETIME"
PLASTIC POLICE CLUBS AND NIGHTSTICKS
for a Lifetime of Service and Dependability

Our Guarantee: If You Break It, Return It for a New One *FREE*.
Sizes
Billies— 10" to 16 inches
Nightsticks— 20" to 26 inches
Brochure and Price List Sent on Request
S. H. RICHARDS CO., P.O. Bx. 181
West Springfield, Mass.
Sole Manufacturer and Distributor

New 750 Watt DC to AC Converters Have Ample Capacity for Marine and Industrial Service

In answer to a demand for larger capacity DC to AC Rotary Converters, Carter Motor Co., 2711 W. George St., Chicago, has announced the addition of a 750 Watt model to its famous "Custom" line.

Like Carter 300, 400 and 500 watt Converters, this new 750 watt job incorporates the latest technological advances in converter engineering. Pole shoes and field ring are cast in a single unit, to eliminate electrical loss and simplify construction. Dimensions are 13⅜" long x 6¾" wide x 7¼" high. Weight approx. 58 pounds.



Carter "Seven-Fifty" Converters are available for input voltages of 24, 28, 32, 48, 64, 72, 115 and 230 volt AC and deliver clean 115 v. 60 cycle AC from handy plug-in receptacle.

"Seven-Fifty" Carter Custom Converters deliver full 115 volts AC under full load conditions while operating at their greatest efficiency. To overcome heavy starting load on major appliances, these converters actually deliver a surge of nearly 1,000 watts at 110 volts, 1,200 watts at 120 v. AC output. Here is considerable overload capacity available without sacrifice of efficiency, without overheating or damage.

750 watt Dynamotors are also available for DC to DC conversion, part of a complete line of Rotary Power Supplies, Genemotors, magmotors and inductor alternators made by the Carter firm.

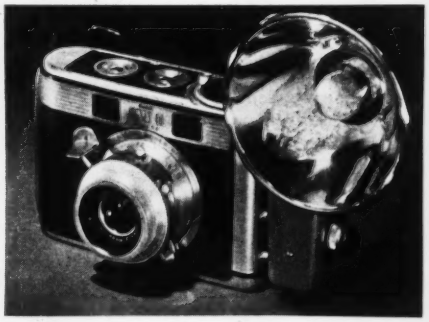
A new Bulletin 1156A and complete information and performance charts are available on request to Carter Motor Co., 2711 W. George St., Chicago 18, Illinois.

Moderately-Priced Kodak Miniature Camera Of New Design Has Wide Application to Police Investigation and Training

The Kodak Signet 40 Camera, a moderately-priced miniature of new design and versatility that make it an important aid to police work, has been announced by Eastman Kodak Company.

Users of this camera won't have to look beyond the camera itself for all the exposure data they need. An exposure guide for use with either color or black-and-white film under existing daylight conditions is part of the camera, while a simple exposure guide for use with various combinations of flash lamps and films is part of the flashholder.

The Signet 40 is smartly finished in bright metal and



black Kodadur and weighs just one pound. It is equipped with an Ektanon 46mm f/3.5 lens. Lumenized and color-corrected, this precision lens will produce critically sharp color slides or black-and-white negatives under a wide variety of light conditions, indoors and out.

The camera has a built-in rangefinder which is combined with the viewfinder in a single window. Ball bearing construction makes focusing adjustment smooth and swift from two feet to infinity.

The eight speeds of the Kodak Synchro 400 Shutter range from 1/5 second to 1/400 second and "B" for long exposures. Synchronization is provided for electronic flash and F or M type photoflash lamps.

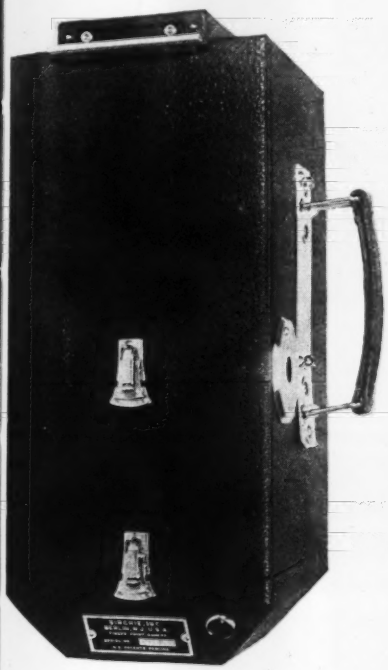
INDEX TO ADVERTISERS

Advance Glove Mfg. Co. 4
Aluminum Plumbing Fixture Co. 42
American Munitions Co. 32
American Television & Radio Co. 24
The W. H. Anderson Company 44
Associated Research, Incorporated 47
B & W Associates 51
Black Light Corp. of America 65
Carter Motor Co. 51
Creighton Shirt Co., Inc. 22
Dodge Division, Chrysler Corp. 2
Douglas & Sturgess 60
E & J Manufacturing Company 6
Electro Talker Corp. 45
Federal Sign and Signal Corporation 3
Graflex, Inc. 43
Institute of Applied Science 12
Institute for Training in Municipal Administration 59
Kolpin Bros. Co., Inc. 27
LaSalle Extension University 65
John S. Lehmann 41
Miles Reproducer Co., Inc. 13
Monitoradio Division, I.D.E.A., Inc. 25
Motorola Communications & Electronics, Inc. ..... Back Cover
S. H. Richards Co. 65
Wm. Simpson, Sons & Co., Inc. 29
Sirchie Finger Print Laboratories 67
Somes Uniforms 30
Stephenson Corporation 48
C. H. Stoelting Co. 49
Trippe Mfg. Co. 61
Wentworth-Forman Co., Inc. 45, 59

33d ANNIVERSARY ECONOMY FEATURES

If you can't have the best due to economy reasons, then choose the next to the best—

Our 1956 catalog available to all law enforcers. Write for your copy.



SIRCHIE MODEL X FINGER PRINT CAMERA $86.50

(Negative Size 2¼ x 3¼)

X921 SIRCHIE CARRYING CASE $11.50

(No Sales to Dealers)

Your Name or Department Stamped in Gold on Camera or Case Free—If Desired.

EACH MODEL X FINGER PRINT CAMERA EQUIPPED WITH:

Anastigmat Coated Lens (American make)
Ground Glass Viewing Frame
1 Cut Film Holder
2 Search Long-life Batteries
1 Light-on Indicator
1 Box 2¼ x 3¼ Film (25 sheets)

The Sturdy X921 Case Accomodates the Camera, Film Holders, Film, Batteries, Powders, Lifters, Brushes, etc.

We are able to manufacture a quality finger print camera at this extremely low price because of a tremendous quantity of lenses which we recently had optically ground at a great savings. We gladly pass on this savings to you, since it is our 33d anniversary.

As manufacturers of the famous search line of finger print and evidence cameras for the past 25 years, we guarantee the same workmanship and precision in the construction of the Model X Camera as you would get when purchasing one of our higher priced units.

Manufactured only by Sirchie finger print laboratories, Berlin, N. J. (formerly of Philadelphia).

SEVEN LARGE 2 OZ. JARS OF POWER-PACKING FINGER PRINT POWDER IN A STURDY CARRYING CASE . . . $8.50

Speaking of limited budgets, note the price for these Sirchie Super brand of 7 colors of finger print powders in an attrctive carrying case for the hand or brief case. Next to the Sirchie Hi-fi Volcano brand powders, the Super Seven economy powders are guaranteed to be as good or better than any brand on the market. Catalog No. X1441 Search Super Seven Powder Kit.

Search Super Seven and Case $8.50 (No Dealers)

THE FAMOUS SEARCH MODEL A FINGER PRINT AND EVIDENCE CAMERA

The only camera capable of delivering perfect photo evidence without reflections and hot spots. Works on A.C. and batteries. Uses 2¼ x 3¼ and 3¼ x 4¼ film or film pack. Automatic in performance. Simple, sharp and clear. Price complete $138.00.

SIRCHIE

Finger Print Laboratories - Berlin, N. J., U. S. A.

Largest in the World *First in Criminal Research* *Oldest in the Nation*

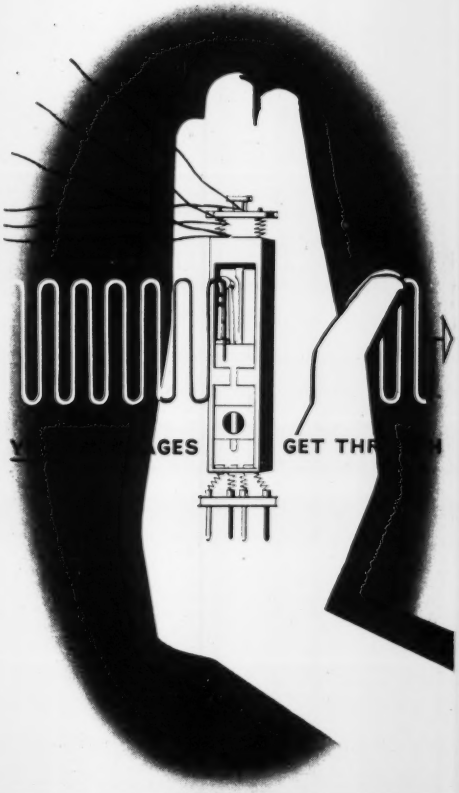
Triumph over Channel Chatter

with PRIVATE-LINE 2-Way Radio

GIVES YOU GREATER RANGE, MAXIMUM PROTECTION AGAINST NUISANCE AND SKIP INTERFERENCE

Truly a new dimension in two-way radio communications—the result of years of extensive engineering and "on-the-job" field testing. PRIVATE-LINE radiophone incorporates an entirely new circuitry concept which provides privacy from interfering signals and unwanted co-channel messages. Now you can "get off the party line." No longer is it necessary to listen to a constant stream of "channel chatter" over the loudspeaker. PRIVATE-LINE radiophone is *completely quiet* except when receiving a call from another PRIVATE-LINE radiophone in the same operation.

- **REDUCES MISSED AND MISUNDERSTOOD MESSAGES**—operators hear only messages within their own operation—minimizes confusion, inattention.
- **INCREASES OVERALL EFFICIENCY**—fewer errors mean more productive utilization of time—fewer repeat messages—more dispatched vehicles per hour...real advantages during peak load periods.
- **INCREASES AREA COVERAGE**—"coded squelch" circuit automatically maintains optimum receiver sensitivity, assuring maximum communications range at all times—prevents desensitization of the receiver by accidental or intentional misadjustment.
- **EASIER TO OPERATE**—no additional buttons, lights, adjustments or operational techniques—elimination of squelch adjustments makes PRIVATE-LINE even simpler to operate than conventional two-way radio equipment.
- **REDUCES OPERATOR FATIGUE**—elimination of "channel chatter" enables operator to concentrate on his job—reduces tension, providing a more pleasant atmosphere—increases job satisfaction.



MOTOROLA

MOTOROLA Communications & Electronics, Inc.
4501 Augusta Blvd., Chicago 51, Ill.

☐ Send me additional information
☐ Have a Radio Engineer call on me

NAME_____

COMPANY_____

ADDRESS_____

CITY_____ STATE_____

The only complete radio communication service—by the outstanding leaders of the industry